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INFORMATION IN WAR :

ITS ACQUISITION AND TRANSMISSION.

BY

COLONEL GEORGE ARMAND FURSE, C.B.

“By the word ‘Information,’ we denote all the knowledge which we have of the enemy and his country ; therefore, in fact, the foundation of all our ideas and actions.”—CLAUSEWITZ.



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THESE STUDIES ARE DEDICATED
TO
GENERAL SIR DANIEL LYSONS, G.C.B.,
CONSTABLE OF THE TOWER,
AS A MARK OF RESPECT, AND IN
GRATEFUL ACKNOWLEDGMENT OF MANY ACTS OF KINDNESS.

PREFACE.

THE words of the talented military writer Clausewitz, which we have taken for our text, indicate the great consequence of the subject treated in the following pages. Much matter relating to the acquisition and transmission of information in the field is found in military works, and is possibly already known to many of our readers; our object, however, has been to collect all the different details in one book, so as to render a thorough study of the subject more easy.

It is a great error to believe that a suitable organization of the various services which help to render an army victorious can be set on foot at a moment's notice. As the intelligence service in war does not appear to us to have met with all the attention which it rightly deserves, we have purposely directed our thoughts to this subject. We can do no more than to offer to the military student the result of our reflections. Inadequate as these are, we trust that they may evoke some

interest in the matter, which may lead to the foundation of an ably conceived organization ready to come into operation at the commencement of any future campaign.

G. A. FURSE.

FRENSHAM VALE, FARNHAM,

September 15, 1895.

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CHAPTER I.

IMPORTANCE OF INFORMATION IN WAR.

"A general who does not campaign in the desert, but in a fairly populated country, and has no information, is ignorant of his calling."—NAPOLEON.

A STATE of war not only puts a sudden termination to all international intercourse, but it leads to each of the two belligerent parties placing, from the very day that war is declared, every possible obstacle in the way of the other acquiring any information whatsoever concerning its designs, or the location and condition of its forces. The perplexing uncertainty which this state of things creates, with regard to all that relates to the real state and power of the enemy, constitutes one of the main difficulties of every campaign.

A profound calculation is the base of all war. The habit of estimating, the faculty of reasoning

things out in one's mind, so as to discover the means for attaining a certain object or for finding the way out of any difficulty, are indispensable qualities in a commander.

Like a player in a game of skill, the leader of an army must weigh all the moves of his adversary; he must endeavour to foresee what he will most probably do under a given set of conditions; he must consider the consequences of his next move, as well as of his own; he must baffle his adversary's designs before he even as much as suspect that they have been divined; and lastly, he must craftily lead him to pursue that course which is most favourable for the execution of his own plans. The similitude, however, exists only in part, for, whereas a player has the board before his eyes, the general commanding an army in the field experiences the greatest difficulties in getting a view of the actual dispositions of his opponent.

The destruction of the enemy's military power, which is the ultimate object of every campaign, is unattainable unless all possible means are employed to ascertain where the bulk of his forces are to be found, and which are the most favourable opportunities for attacking him. This demands much labour and unremitting attention, for it is with the utmost difficulty that a commander can pierce the thick mist which a state of war spreads round the opposite forces.

No military operations can be carried out without having first acquired such intelligence as will assist in making the most suitable dispositions. A commander must not only see that he gets information, but also that what he obtains is the best and most reliable. The greatest talent will be of little avail to him if he cannot devise means for acquiring a knowledge of his adversary's strength, position, and movements. All great captains have attached very considerable importance to this matter. Frederick the Great remarks in his general principles, "If one could always be acquainted beforehand with the enemy's designs, one would always beat him with an inferior force." The very words used by this great and experienced commander show that the acquisition of this so much-needed information is a doubtful matter, and what makes it so are the innumerable precautions which the adversary takes to prevent a disclosure of anything which may be injurious to his army.

Many instances of victory and of defeat have been nothing but the outcome of good or bad information. To be forewarned is to be forearmed; timely information averts dangers, and is often the means of suggesting to a commander some brilliant conception which may lead to victory, or may extricate his army from a perilous situation.

Very disastrous consequences have often sprung from ignorance of the enemy's movements. When we look into ancient history we cannot fail to

trace the fate of Carthage to a case of this nature. Previous to the battle of the Metaurus, while the Consul Nero was observing the Carthaginian army which Hannibal commanded in the south of Italy, Hasdrubal was bringing to his brother powerful reinforcements from Gaul. Hasdrubal's messengers were captured before they were able to reach Hannibal's camp, and with them his intended plan of action fell into the hands of the commander of the Roman army. Nero, grasping the full importance of the crisis, determined to prevent the junction of the two forces, and marched secretly to join the Consul Livius at Sena. The two consuls defeated Hasdrubal's forces on the Metaurus, and the first intimation Hannibal received of Nero's march to the north was the ghastly sight of his brother's head, which was thrown into his camp. The Roman commander, who had returned as rapidly as he had left, was facing his opponent in the south before his absence to join the forces under Livius had reached Hannibal's ears.

General Thiébault remarks, "A warning received opportunely may secure victory and prevent a defeat. War is only doubtful in its results, because it is possible to fall into error with regard to the movements of one's adversary. He who can learn them without delay or uncertainty will not have to fear an unlucky chance. In ordinary wars it is impossible to acquire this knowledge thoroughly and promptly, and the most trifling information is

often obtained only too late and with the greatest difficulty. It is consequently necessary to overcome the obstacles which are multiplied by the enemy's precautions, by turning to account all the means which talent is capable of originating and suggesting, and which zeal, industry, and activity can bring into play."

The acquisition of information is not simply a matter for the general in supreme command; every other general, and in fact every officer, must always be all eyes and ears to know what is going on around him. All alike are bound to give their personal attention to this, all must strive to acquire as much knowledge as possible of the movements and doings of the adversary. No sacrifice can ever be considered too great to attain it.

The measures to be taken to pry into the enemy's situation must be set going at the earliest period of the hostilities, if a commander desires, as he must, to assume the initiative. The general who is foremost in the preparations, and who is endowed with the strongest determination, will always force his adversary to subordinate his plans to his own; this, nevertheless, is subject to the condition that he is cognizant of the position and strength of the forces opposed to him. Though the leading principle in war is to march with boldness and confidence against the enemy wherever he is to be found, as Hamley observes, a

commander may be rendered "cautious, from not knowing when he may venture to be bold, and rash from ignorance of what may be attempted against him."

What would we ever be able to attain if we allowed ourselves to be easily discouraged by any difficulty? In war the greatest difficulty is to see things correctly, for to know with approximate certainty where the enemy is and what he is doing is anything but an easy matter; in the majority of cases events turn out far different from what we expected.

Clausewitz remarks, "We always know much less of the actual condition and of the designs of the enemy, than we assume on supposition in forming our plans. . . . Not only are we uncertain as to the strength of the enemy, but rumour (all intelligence which we receive through outposts, spies, or by accident) increases his numbers. The great masses of people are timid by nature, and thereby danger is invariably exaggerated."

The uncertainty as to the course which the adversary will most likely pursue cannot but beget a large measure of indecision. A commander is paralyzed when he is quite in the dark as to the enemy's doings; for all he knows he may be aiming a deadly blow at him. How can he put his own plan into execution if he is not able to forecast what is likely to occur? If he has real genius for war, if he is strong and his plans are ably conceived,

he may dash boldly forward, trusting that his audacity may disconcert the adversary, for in war daring is often prudence. In the Jena campaign, for example, Napoleon's advance on the Saal compelled the Prussians to abandon their own plan and to retrace their steps, so as to intercept the invading columns. Not every commander, however, is gifted with the same amount of audacity and self-confidence.

The moral effect which the early scenes of a campaign often exercise during the whole course of a war is such, that a commander should always essay to open a campaign by a success. Any hesitation, any doubt as to the proper course to pursue, will be surely taken advantage of by his adversary, who will rob him of the initiative. Irresolution is more than it is generally believed brought about by a false impression of the strength of the enemy's army. It is the worst fault in a commander, for it compels him to remain stationary and to abstain from all enterprise, whereas, even by following a questionable alternative, he is in the pursuit of a definite object, which may go far towards marring his adversary's plans. In war the many errors committed on both sides can be generally traced to the difficulty experienced in getting a view of the enemy's hand. Of the two, the commander who is better informed, has always an immense pull over the other; he has a certitude in the efficiency of the measures he takes, whilst his

adversary more or less acts at random. Feeble minds, in the absence of information, will generally let matters drift.

Indecision in a commander may not be part of his nature, and often originates, as we have said, from the state of ignorance in which he is kept with regard to the action and intentions of his opponent. The heavy responsibilities which rest on him may therefore produce an amount of caution which is quite strange to his ordinary character. Great captains alone can sleep with calmness on the eve of important events, simply because they are confident that they have neglected nothing which their genius told them needed their attention. They thus attest the principle that when all has been done that is possible to insure success, the result must be left in the hands of Providence.

In war we must always be prepared for what was least anticipated. We are always in a state of uncertainty; we can never thoroughly forecast the result of our measures. A crafty general, besides trying to mislead his adversary by spreading false reports, may change his disposition at the eleventh hour, so that his intentions and preparations may not come to be revealed; otherwise his designs may be influenced by events which have occurred in other parts of the theatre of war, or by political considerations. With a change in his plans, all our suppositions fall to the ground.

It is a great fault ever to speculate on the

negligence and want of ability or enterprise of the adversary ; on the contrary, we should invariably give him credit for doing all which his talent may suggest. Only by acting in this guise we shall be always prepared for anything which may occur. One is too easily led to believe that he has successfully allured his adversary into error, and when it is suddenly realized that there were no good grounds on which to base such a supposition, there may be no time for altering the dispositions which have already been made.

In some instances, undoubtedly, there will be very little to go upon ; the enemy may keep strictly on the defensive, his troops may be covered by some natural obstacle, and there may be no stray leaf to show which way the wind is blowing. The memorable battle of Marengo illustrates the difficulty which is experienced in forming a correct forecast of the enemy's intentions in circumstances of this nature. After crossing the Scrivia, Bonaparte expected to find the Austrian army on the plain of San Giuliano, whereas he only found the village of Marengo occupied by a small rear-guard. The extraordinary inactivity of Melas, his having overlooked this important position, and the wrong information furnished by a spy, led the First Consul to believe that Melas purposed to escape to Genoa, or to attack Suchet, who was posted on the Apennines. Acting on this supposition, he detached Desaix, with two divisions, with the object of

watching the road from Alexandria to Novi, which the Austrians had to take to reach Genoa. Melas, instead, to recover his communications, issued from Alexandria on the 14th of June, crossed the Bormida, and attacked the French army. But for the timely return of Desaix,* Bonaparte's army would have been signally defeated on the field of Marengo.

What little pains the Austrian staff took in 1800 to acquire information is shown by the fact that the French army which crossed the Alps had been fifteen days in Italy before Melas became aware of it. Nevertheless the bulk of the Austrian army was in Piedmont, and the French troops debouched on the plains of Italy, at Ivrea, which is only 38½ miles from the Piedmontese capital.

Warlike genius alone can fathom the enemy's designs, nevertheless a just appreciation of his measures will often indicate the probable course of events. In 1870, from reports of the emplacements for guns and shelter trenches at Ober-Stembach and Lembach, and of extensive entrenchments at Strasburg and Breisach, the German staff came to the conclusion that the French, feeling their state of unreadiness, and acknowledging how they had been outstripped by the German preparations,

* According to General Lewal, Desaix was the first of the republican generals who appreciated the full importance of the intelligence service. He always kept himself well informed of all that passed in the other armies in the field, and on other theatres of operation. No one was better informed than he was.

had given up all idea of assuming the offensive, and intended to receive battle behind the Saar.*

In that war there was a marked difference in the matter of procuring intelligence between the French and the Germans. Early in the month of August great uncertainty prevailed in the camp of the former as to the military situation, whereas, by the evening of the 3rd of that month, the latter, at Mayence, had very accurate information of the position occupied by the 1st, 2nd, 3rd, 4th and 5th French army corps.

It is beyond the scope of this work to touch on the acquisition of information through the agency of ambassadors and other diplomatic officials. The information they have to obtain for their ministers of foreign affairs refers more to political than military matters. History, however, shows too plainly how sovereigns and statesmen have not disdained to enter into very questionable transactions to secure intelligence of the policy of foreign states. Matters have been carried so far that we have on record many noted cases in which State papers and compromising documents have been stolen, and in which individuals have been enticed, through the promise of large rewards, to betray their too-confiding patrons. The principal evidence on which Captain Dreyfus was lately tried, was stated to have been a document extracted from the German embassy in Paris.

* "German Official Account," vol. i. p. 116.

A commander is compelled to form his plans not on what he can see for himself, but on the reports which he receives from others, frequently from what has been observed by subaltern officers and private soldiers, or from what has been surreptitiously gathered by spies. It is beyond the nature of things to avoid getting meagre, inexact, or even false information ; for all that he must strive to acquire as much positive intelligence as he can, as it is on this alone that he can base his most important resolutions. The difficulty experienced in acquiring relevant information is proved by the course he is often compelled to follow before giving battle. This is preceded by a reconnaissance made by a body of all arms, with the object of drawing the enemy out, making him display his forces, and show his dispositions. As the intention, nevertheless, is to break off the engagement, and to withdraw the troops as soon as the desired object has been attained, this information is purchased at the cost of a certain number of valuable lives, whilst the retreat raises the spirit of the defenders, who are sure to magnify their success.

The large zone occupied by great armies adds to the uncertainty of the existing state of things ; for, not only does the nature of war hide the enemy from us, but we cannot at all times command a view of all the detachments of our own forces.

Occasionally the state of our army, which is before our eyes, may restrain us from assuming a

bold offensive, because, from absence of information, we suppose that the circumstances of the enemy are far better than our own. In his narrative of the Irish war of 1689, Macaulay* shows how matters stood in the two armies when Schomberg reached Dundalk, and was only one long day's march from Drogheda where the Irish forces were gathered. "In both camps, all who did not understand war were eager to fight; and in both camps, the few who had a reputation for military service were against fighting. Neither Rosen nor Schomberg wished to put everything on a cast. Each of them knew intimately the defects of his own army; and neither of them was fully aware of the defects of the other's army."

A commander must strive to discover his enemy's weak points, he must endeavour to out-manceuvre his adversary, and to undermine his confidence and that of his troops. He must not rest satisfied with having a knowledge of the peculiarities and actual condition of the army in front of him, he must dive deeper, and gauge rightly the talent and general character of the officer who commands it. War being more of a contest between two skilful adversaries than between two masses of armed men, the leader who has formed a correct estimate of the ability, individuality, and temperament of his opponent has an immense advantage on his side, and can command victory, even when at the head of a smaller army.

* Macaulay's "History of England," ch. xiv.

It was this knowledge which made Lee the foremost general in the Secession War in the United States. In the words of his military secretary, "He studied his adversary, knew his peculiarities, and adapted himself to them. His own methods no one could foresee; he varied them with every change in the commanders opposed to him. He had one method with McClellan, another with Pope, another with Hooker, and yet another with Grant. But for a knowledge of his own resources, of the field, and of the adversary, some of his movements might have been rash. As it was, they were wisely bold."

Lee no doubt possessed a considerable knowledge of human nature, without which it is impossible to form a correct estimate of individual character, nevertheless he must also have had a good system for gaining the right sort of information in all that related to his antagonists.

Whilst making every effort to obtain information regarding the enemy, every possible precaution must be taken to prevent him from doing likewise. All the means, all the artfulness a commander employs to be kept well informed, should find an exact counterpart in keeping information of any sort from reaching his opponent.

When operating in conjunction with allies, as a commander is never quite certain of the trustworthiness of the people he has about him, he must,

himself. An instance is related of Marlborough, who, when urged by the council to attack the next day, positively refused, emphasizing that nothing would ever induce him to do so. For this he was called a coward in the council chamber. "Yes, I may be," he replied, "but I will not attack." His object was to conceal his real intentions, for he well knew that there was some one present ready to pass on the news to his adversary. He did attack the following morning, but his object had been gained, for it was then too late for any one to send a warning to the enemy.

Carelessness in acquiring information often leads to lamentable results. The favourable issue of the battle of Brienne (1st February, 1814) had elated the allies, especially the Prussians, who loudly clamoured to be led to Paris. Persuaded that this would be nothing beyond an ordinary march, their chiefs relaxed in their vigilance, and neglected to take measures for gaining information as to the position occupied by the French army.* The Prussians paid dearly for this want of all military

* Napoleon had concealed the real direction of his retreat, and it was hastily concluded that the French army had been dispersed and was out of condition to keep the field. All strategical considerations were put aside as useless; it was decided that the allied armies should separate and march on Paris, the Prussian by the Marne, the Austrian by the two banks of the Seine. There was no question of following the French army, or of ascertaining the positions it had taken. It was said that Blücher boasted that he would arrive in Paris *le jeudi avec mil*

precaution ; the French unexpectedly appeared at Sezanne on the 9th, when Blücher's corps were too far separated to afford each other mutual support. On the 10th, Napoleon, in the battle of Champaubert, cut the army of Silesia in two. He destroyed Alsufieff's corps, capturing 3000 prisoners (amongst whom Generals Alsufieff and Poltaratzky), and 21 out of their 24 guns. On the 11th he beat Saken and York at Montmirail, inflicting on them a loss of 3873 killed and wounded, 700 prisoners, 26 guns and nearly 200 waggons and other carriages. On the 14th he defeated Blücher himself at Vauchamp, killing or wounding 6500 of his men and taking 2000 prisoners, with 15 guns and 10 stands of colours. Blücher's retreat from Vauchamps to Champaubert has been much praised, nevertheless the Prussians themselves admitted, that, had Grouchy's two horse batteries kept pace with his squadrons, no alternative would have been left to them but to lay down their arms.*

We have purposely selected this case, for it clearly shows how often dearly purchased experience is set at naught. In 1814, counting from the battle of Valmy, Europe had been twenty-two years at war, still, as the campaign of that year proved, the allied commanders had profited very little by the many lessons taught by the constant military operations of those eventful years.

* See "Histoire des campagnes de 1814 et 1815 en France," by General Guillaume De Vaudoncourt, liv. iii. chap. iv.

To gain information of the enemy is a great object, important results may, however, be obtained by leading him into error. Stonewall Jackson gave very sound advice when he said, "Always mystify, mislead, and surprise the enemy." To deceive the adversary is one of the usages of war, and one to which expert commanders have never disdained to resort. This is done by spreading false information, and by circulating misleading reports of one's intentions, in such a way that they may be sure to reach him. It is held that a commander who has succeeded in deceiving his opponent has half beaten him, and many examples could be adduced in support of this. Writers have found fault with Napoleon for spreading false information, for publishing inaccurate bulletins, for misstating the number of his troops, for lowering his defeats and magnifying his victories; nevertheless, no one ever knew better than he did what advantages could be reaped from all this. No one possibly had greater recourse to imposture than Napoleon, but the prestige of his military successes seduced the people and made them blind to the means he employed.*

A commander must strive at all times to keep up the ardour of the troops, and when placed in difficult circumstances must prevent anything leaking

* "Napoleon treated truth in the same way as he treated the nations opposed to him—she had to bow down to his will; and to content him a number of documents were destroyed, forged, and falsified."—Count D'Herisson, "Le Cabinet Noir."

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out which may tend in any way to lower their spirits. It is always prudent therefore to give the operations as favourable an appearance as possible, and not to reject any measure which will enhance the confidence of the soldiers. A certain deception in this matter is excusable, looking at the unfortunate consequences which might follow were they to become cognizant of certain unfavourable incidents. There is also, generally speaking, a possibility of the circumstances not being so bad as they look, and of the enemy not being in a better plight.

Anything which will tend to undermine the confidence of the enemy is perfectly admissible. Thus we read that the German outposts in front of Metz announced to the French the catastrophe of Sedan by clamorous cheering. Also that in exchanging prisoners they selected officers and soldiers who had been present at that battle, so that they might report that the Emperor had been made prisoner, and how they had learnt from newspapers the fall of the empire and its substitution by a government of national defence.

We must always prevent giving our adversary the most trifling indications of our intentions. Gordon, at Kartum, repeatedly enjoined not to let the Mahdists acquire any knowledge of the route which the relieving party intended to follow. The intention of crossing the Bayuda desert was no doubt revealed to them by the occupation of the

Gakdul reservoirs, and this led to their advance to the wells of Abu-Klea, with the object of preventing Sir Herbert Stewart's column from reaching the Nile.

It is not unnatural that a commander in certain moments may desire to acquire personal information of the disposition and confidence of his own men. The early Roman history has left us a conspicuous example of this. In the year 16 Germanicus, having crossed the Weser, was informed by a deserter and by his scouts that Arminius intended to surprise the Roman camp that night. Having formed up his army and taken the necessary precautions to defeat an attack, he disguised himself, and went amongst his men to make himself acquainted with their disposition. In Malleon's words : * " Everywhere he heard nothing but praises and confidence in himself : one man praised his high birth, another his noble carriage, a third his patience, a fourth the affability which knew no distinction of persons—all declared that in the coming fight they would prove their gratitude and their appreciation. To praise of Germanicus the soldiers added expressions of contempt for the enemy ; they derided their want of discipline, the roughness of their armour, and the lightness of their weapons of offence."

History often repeats itself, and nearly eighteen

* " Ambushes and Surprises," by Colonel G. B. Malleon, C.S.I., p. 90.

centuries later, the night before the famous battle of Austerlitz, as Napoleon was secretly visiting the bivouacs of his army, he was recognized. He was instantly saluted by his troops with an immense shout of enthusiasm, and some thousands of wisps of lighted straw hoisted on their bayonets suddenly illuminated the whole front of the army, whilst the enraptured soldiers promised him a brilliant victory on the morrow.

A very essential point is to get the information in time, for, as opportunities in war are very fleeting, the sooner anything comes to hand which reveals the actual state of the situation, or any highly important particular, the sooner measures can be taken for injuring the enemy or frustrating his designs. When the French army was blockaded in Metz, and Marshal Bazaine was studying the means for forcing his way out, how invaluable to him would have been the information that two complete army corps had been withdrawn from the investing force to strengthen the Crown Prince in his operations against McMahon's army! True enough that Bazaine was not a born commander, still there were generals with him sufficiently talented to grasp the full importance of such news, and to act on it promptly. These army corps left on the 27th and 28th of August, but when the victory of Sedan had disposed of the only other army the French had in the field at that time, they were free to resume their position

before Metz. The opportunity lasted only a few days.

Heaven sends opportunities; it is for man to make good use of them. A commander will only have himself to blame if he will not turn to account the information he receives. Marbot relates how, previous to the battle of Busaco, some of Massena's staff officers, being disquieted by the apparent strength of the position occupied by the British troops, found an old gardener working in a monastery, who stated that there was known to him an excellent road going from Mortaga to Boialva round the British left. Massena, nevertheless, allowed himself to be led by his generals into making a direct attack, fully persuaded that they must have failed in discovering a road by which he could turn Wellington's position.

Gross ignorance and slack discipline may keep most urgent information from reaching a commander. In detailing the events which preceded Monmouth's night attack at Sedgemoor, Macaulay* gives the following as having come from a creditable source: "The report of the intended attack came to the ears of a young girl who was zealous for the king. Though of modest character, she had the courage to resolve that she would herself bear the intelligence to Feversham. She stole out of Bridgewater, and made her way to the royal camp. But that camp was not a place

* Macaulay's "History of England," chap. v.

where female innocence could be safe. Even the officers, despising alike the irregular force to which they were opposed, and the negligent general who commanded them, had indulged largely in wine, and were ready for any excess of licentiousness and cruelty. One of them seized the unhappy maiden, refused to listen to her errand, and brutally outraged her. She fled in agonies of rage and shame, leaving the wicked army to its doom."

The information which a commander needs can be divided into two parts—one that embraces everything which refers to the adversary's strength, distribution, and location, the other to the condition of his army. On the information he will gather on the first part he will be able to arrange his plans; on what he secures on the second he will be guided in surmising what the enemy is in a position to do, and how he himself can best attain his object whether by fighting or by temporizing. Should he get to know that his adversary is wanting in decision, that his troops are dispirited, that dissensions are rife amongst his subordinates, he will naturally be encouraged to undertake a bold offensive. Let us, however, assume that, whilst he has in front of him a very strong position, he receives intelligence that his adversary is hampered by want of provisions; that the alimentation of his troops is drawn entirely from the local resources, which are beginning to fail; that he has established no magazines in his rear; he will possibly abstain from sacrificing a

large number of valuable lives in battle, confident that hunger and want will soon compel his opponent to retire and abandon a large extent of territory without ever firing a shot.

The alimentation of an army plays such a very important part in war, that a commander must always take into consideration the difficulties which both he and his adversary will have to encounter in this matter. To be correctly informed in all that relates to the agricultural resources of the country, on the amount of cattle, horses, and transport procurable, on the establishment of magazines and depôts, is of the utmost consequence in the formation of our plans. The exhaustion of the local resources will prevent the adversary from concentrating his forces for battle; the absence of well-stocked magazines in rear may decide him not to risk an engagement, for should his army be beaten he would hardly be in a position to effect an orderly retreat, and be ready soon to face about and confront his opponent. A commander will always fight with greater pluck and obstinacy if the state of his resources is satisfactory, and if he is not tormented by the thought of all the hardships which must surely follow a defeat. On the other hand, he will strive to keep his adversary from gaining even a suspicion of the straits he is in, for fear that this knowledge might induce him to follow a bold course.

The great importance which is universally assigned to the acquirement of relevant and reliable

information shows of itself how unsparing we should be in training our officers in all that relates to this subject. The great pains taken in mastering the principles of strategy are insufficient, if adequate attention is not devoted to the study of those measures which have great influence on the whole strategy of a campaign.

The marked difference which exists between a state of peace and a state of war, renders it very difficult to acquire any very practical experience in a matter which may well be said to be second to none in consequence in war. By manœuvres on a large scale—the nearest approach we can devise to actual war—officers may be turned into competent leaders of men, the superior ones may be made familiar with the right employment of the three arms on the battle-field, the staff may acquire valuable practice in all that relates to the march and maintenance of large masses of troops. But mimic warfare is entirely wanting in those conditions which make the acquiring of information in a campaign so arduous a matter. These conditions are only to be found when we operate in a strange country, in a country in which a different language than ours is spoken, in which the feelings of the population are against us, in which seeking information is attended with many risks, and in which the enemy places every possible obstacle in our way of knowing what he is about. Manœuvres—excellent as they are in a training

point of view—are war without its horrors, its dangers, and all its inherent difficulties; and the practical instruction they afford in certain actions and duties is, unfortunately, too limited to be of sufficient value when applied in the field. For all that, to rehearse in peace all that will have to be done in war is a fundamental principle never to be forgotten, as experience has clearly proved that in war all extemporaneous measures yield very unsatisfactory results.

The information required for the proper conduct of military operations can be again divided into two distinct parts—one which comprises all that can be gathered before the commencement of hostilities, the other all such as can only be obtained in the field. Given that every attention has been paid in peace to our preparations, when war comes to be declared we shall know a good deal of the opposing army. We shall have a pretty accurate idea of the number of combatants the enemy will be able to place in the field; we shall be familiar with the topography of his country, with the situation and strength of his fortresses and arsenals, and we shall have a pretty general idea of the extent of the local resources. All these are points of relevant consequence no doubt; but in war we need much more. We require a knowledge of the enemy's doings from day to day, something quite recent, from which we may be able to deduct his attitude and in what condition he actually stands; may fathom his

intentions and forecast the probable run of events. This evidently can only be done on the spot, and then principally by officers who have been trained in this particular branch of staff work.

A thorough organization of the intelligence service is anything but superfluous; if nothing more, the immense consequence of being always cognizant of the enemy's doings clearly proves how very necessary it is. Let us disabuse our minds that a service of this description can be improvised in the field. Nothing of the sort; for it requires such nicety of arrangements, such prevision, such knowledge of the general circumstances of war and of human nature, that a sound basis must be distinctly laid down for it in peace, and able men trained to undertake it. As nothing of what can be foreseen should ever be left to chance, the arrangements for procuring information in the field must form a recognized part of the preparations for war.* The service is not one which can be easily created. To obtain satisfactory results it must have its principles, its means, and its ways of operating distinctly laid down. Only a practical and far-reaching system can replace the want of personal experience. Having laid down these principles, and elaborated

* On two different occasions a staff officer of high position complained to me in very strong terms of the inefficiency of the intelligence service in the Sudan. It struck me at the time how unjust these complaints were, considering that the service had been organized hap-hazard, and the subject had not formed part of a previous study.

a system adapted to the capacity of all, we should go further, training officers in this special branch, and having the duties practised as far as it is possible in the yearly manœuvres by the troops, and above all by the staff.

With the many impediments which the enemy is sure to place in the way of our gaining information, it would at first sight appear almost impossible to acquire any reliable knowledge of what is passing in the opposite side. Nevertheless the sources from which we may gather such information as we shall need are many, and all alike can be turned to good account by officers who thoroughly understand their proper employment. As no stone must be left unturned, it will be as well to enumerate the principal sources, leaving on one side the preliminary information which will be collected by the Great General Staff, or Intelligence Department, either before the declaration of war or during its progress.

Information in the field may be obtained—

- a.* Through the cavalry which covers the army.
- b.* Through reconnaissances.
- c.* By a judicious employment of spies.
- d.* By questioning prisoners and deserters.
- e.* By details furnished by scouts or patrols.
- f.* By particulars acquired by the military police.
- g.* From newspaper reports.
- h.* By tapping the enemy's telegraph wires, or by seizing originals or copies of telegrams.

- i. By intercepting couriers or other individuals bearing despatches.
- k. By seizing correspondence passing through the post, documents found on prisoners, amongst the effects of the enemy's dead, or in offices, hotels, or private dwellings.
- l. By questioning the inhabitants.
- m. From certain special indications.

CHAPTER II.

INTELLIGENCE STAFF IN PEACE.

BOTH in a political and in a military point of view it is of the greatest consequence to possess at all times as much information as possible with respect to those countries in which an army may have any day to operate. All experienced commanders have paid special attention to this subject. According to Polybius, long before his first campaign against Rome, Hannibal had sent numerous agents to collect positive information on the fertility of the countries lying at the base of the Alps and of the valley of the Po, on the populations of those countries, on their martial spirit, and, above all, of the hatred which they appeared to bear against the Roman Republic. It is well known what immense importance Frederick the Second and Napoleon attached to information collected before the commencement of a war. Rustow, referring to this subject, observes: "If it is important for every officer to know his own army, it is not the less so for him to know the forces of foreign

countries ; above all, of those against which we may have to contend, as well as of those which we can more or less consider as our natural allies."

The absolute necessity for being well posted in the strength, organization, and system of foreign armies, for gathering topographical and statistical information, for working out schemes, reporting on a variety of military questions, and for watching over the course of events abroad, has led to the formation of a special branch of the headquarters staff, called the Great General Staff,* in our army known under the name of the Intelligence Department.

There is no gainsaying that the work of the Great General Staff, inasmuch as it deals with the organization and preparation for war, and the study of great military questions, is the most important of all. The work in the other sections of the staff relates more to the present than to the future.

Referring to the German Great General Staff, Major C. B. Brackenbury† states : " The first great fact is that all their labours are directed to one end—preparation for war—and that so thoroughly that there is nothing left unprepared when the time of trial comes. Prussia, and therefore Germany, can never be caught unawares. She is always and absolutely ready."

* The Great General Staff of the Prussian army was organized in Berlin in 1816, after the close of the Napoleonic wars.

† See lecture delivered by Major C. B. Brackenbury, at the Royal United Service Institution, on the 19th of February, 1875.

To do full justice to the fighting material of the nation, all organization for war against a powerful enemy must necessarily be made in peace. The importance of continuity in our preparations for war is a great point; this can only be secured by having a general staff organized somewhat on the German model. In that body the preparation for war constitutes the most momentous item of their ordinary work, which, independent of the character of its chief, is the governing principle of the institution.

In continental states the call to arms is not as frequent as it is in ours. Forty years back from these days we were engaged in our last war against an European power; since that period the sound of our arms has been heard in every other quarter of the world. Most of the contests we have waged certainly were of small magnitude; nevertheless, they demanded careful study and preparation, for, generally speaking, we were called to operate in countries far from our main source of supply, our home arsenals, and had very little knowledge of the power and resources of our foe.

To direct the work of the Great General Staff it is not sufficient to have an officer with a reputation for industry and great mastery of details; what is required is an individual who, from a rare combination of natural aptitude and application, has acquired a profound knowledge of war, and an intimate familiarity with all the questions which

relate to the efficiency of every branch of an army in the field.

The ability and foresight of officers not being a constant quantity, there is never a guarantee that an officer will take up the work on the lines laid down by his predecessor. To give an example: when Marshal Niel—who had foreseen the coming war with Prussia—died in August, 1869, his successor, General Le Boeuf, did not persevere in his preparatory measures. By reducing the annual contingent of men, by striking off the establishment a large number of horses, by dissolving the committee appointed in 1869 to regulate the railway transport in war, and by neglecting the organization of the Garde Mobile, he undid much of the useful work taken in hand by his more competent predecessor.*

Brackenbury states: "By the 'Intelligence Duties of the Staff' are to be understood: *Firstly*, the collection, sifting, and arrangement of all information required by governments and military authorities to enable them to take such measures in peace as will insure the rapid commencement and vigorous prosecution of any war, whether at home or abroad. *Secondly*, the diffusion of necessary or useful military information through the army and country during peace and war."

* In his work, "Souvenirs de la Guerre de 1870-1," General Thoumas shows how Marshal Niel was hampered at every turn by the exigencies of the treasury.

"The information required for the successful and economical prosecution of war is obtained with comparatively little difficulty during peace, and should be ready in a concentrated form when war breaks out.

"Let it not be supposed that there is some occult means by which neglect in peace could be atoned for in war. If the required information be not ready, it cannot be suddenly obtained."

As a rule, the Chief of the Great General Staff "is responsible for the preparation of plans for all possible campaigns. To him are confided the study of the strategical conditions of his own and foreign countries, and the elaboration of schemes of mobilization and concentration. He has generally the management of survey and topographical work, and exercises special superintendence over the railway and telegraph troops."*

One of the principal duties of the staff officers serving under him, in the normal times, is to collect and arrange all the military information regarding other armies which they can gather from any source, so as to have it handy when any serious complications, or the course of events, indicate a possible disturbance of the peace.

There must naturally be a connection between the Military Intelligence Department and the Foreign Office. On the subject of general policy

* "Foreign War Offices," by Captain C. E. Callwell, R.A., *Royal United Service Institution Journal*, No. 180, p. 117.

the latter receives from its diplomatic agents abroad much information relating to military matters, which cannot but be most useful to the former; whilst the officers of the Intelligence Department, being specialists, can always supply the Foreign Office with their views on the probable military effect which may result from passing events.

All that relates to the system, strength, composition, and resources of regular armies has of late years received much attention. With the progress made in cartography and in statistical publications, all civilized countries are, generally speaking, well known. The geography of the various states, the main thoroughfares, railways, and navigable water-courses, the amount of the population, the wealth, local produce, industries, extent of the mercantile marine, etc., are all particulars which have been fully published. There is, consequently, an ample store of matter from which valuable summaries can be drafted and kept up to date with very little labour.

The military attachés, who now form part of the staff of diplomatic agencies abroad, have to watch and report on all military matters in foreign armies in peace and in war, and through their communications can render to the Great General Staff services of no mean importance. Their duty, however, is of a delicate nature, and requires considerable tact; for, being official agents of information, they are closely watched. Their task becomes more difficult as

soon as there is some want of cordiality between the government that sends them and the one to which they are accredited. All this shows with what care the officers for this post should be selected; only those who have great prudence, a deep knowledge of the art of war, and a natural gift of observation are well adapted for it.

The folly of sending able and observant officers as military attachés, and then neglecting to turn to account the information which they furnish, was illustrated at the period of the last Franco-German war. The brilliant successes of the Prussians in 1866 had wounded the self-esteem of the French officers to such an extent, that an impending war between the French and Prussians was only too evident. Not only had General Trochu, in "*L'Armée Française en 1867*," exposed the radical defects in the organization of the French land forces; but in Lieutenant-Colonel Baron Stoffel the French had an able military attaché at Berlin, who, in his just and exhaustive reports, conscientiously instructed his government on the efficiency, readiness, and other qualities of the Prussian army.

From some unexplained reason, most probably from motives of pride, or, as it has been urged, not to alarm the country, little attention was apparently paid to these reports, and the French awoke from their fool's paradise when it was too late. After the war, Stoffel's reports were published, and it was then seen how their contents, in the main, were an

accurate forecast of the events which followed the declaration of war. This is a very salutary lesson, for it shows the deplorable consequences which may result when the staff responsible for the efficiency of an army are deaf to the warnings they receive from observant and well-informed officers.

Writing to General Frossard * from Strasburg, on the 31st of January, 1869, General Ducrot enumerated all the preparations for war which had been carried out in Germany for the last two years. "It is really a pity" (he wrote) "that we have no means for watching what is done or being prepared by our too active neighbours." †

The information which has to be gathered in peace may be divided into three distinct parts—

(a) All that relates to foreign armies.

(b) The topography of other countries, and above all of such as are likely to become at any time a theatre of war.

(c) All that has reference to the population and resources of the above.

Under the first heading we must inquire into the military organization of the various armies, noting their strength on a war footing, their system of mobilization, their order of battle, their uniforms,

* At that time General Frossard was tutor to the Prince Imperial.

† Amongst the secret papers found at the Tuileries were several letters from General Ducrot, in which he informed his government of the preparations going on in Prussia.

the reputation of the generals who command them, and the education and spirit of their officers.

Under the second comes the collection of the best maps and geographical works. As what can be gathered from these is generally insufficient, it must be complemented by personal inspection, so as to acquire a certain knowledge of the principal features of the country and of their value for offensive and defensive purposes. The nature of the roads, the position of bridges, viaducts, fords, and woods, the climate at different periods of the year, must be laid down with precision, as well as all that relates to such railways and inland water-courses as can be made use of by an army.

Under the last heading come the population and local resources. In this it is not sufficient to gather from statistics a knowledge of the products of the country in general and of the various centres, we must go deeper; we must ascertain the principal commercial establishments for articles of alimentat-ion and of clothing, the manufactories of arms and ammunition, the available means of transport. To this must be added a list of the local authorities and most influential and wealthy individuals, of all who may be able to render useful services to our army. Also the peculiar characteristics of the population, their system of administration, their principal occupation, and their general tendency.

All this must be classified methodically, in such a manner that the information which relates to any

point or locality may be handy when wanted. Before his campaign of 1806, Napoleon ordered the compilation of a lexicon or directory to be made of all the principal towns and villages in Saxony, above all of those leading from Leipzig to Dresden.

From its rich store of records the intelligence staff can not only furnish much information on all that relates to the topography, climate, resources, and other peculiarities of the theatre of war; but it can likewise gauge certain characteristics of the enemy, such as his courage, determination and obstinacy, his fortitude under reverses, his quickness in recovering from a defeat, and the like. All this will conduce to that just appreciation of the enemy's power which must always form the basis of our arrangements for a campaign.

Each nation has its own special system of arming and equipping, each nation has its peculiar manner of fighting, each one has its kind of intrepidity and bravery, and its distinct conceptions of war. All these different habits more or less owe their origin to the individuality of the people and to the nature of their country.

In studying the events of the past, it is nevertheless necessary to bear in mind that extraordinary circumstances have occasionally given to an army an unexpected superiority over another, and have stirred a population to offer a stubborn resistance which it was hardly possible to foresee. In the early days of the French Revolution, for example,

it was reasonable to suppose that the military institutions of France would have suffered by the collapse of the Royal government, and that the Austrian and Prussian armies would have had to contend with a contemptible enemy. Notwithstanding the emigration of a large number of the best French officers, and the disappearance of the old corps, the enthusiastic *élan* which the republican ideas imparted to the conscript, made the new levies very formidable, and their dash, when opposed to the too rigid tactics of their antagonists, proved irresistible.

As another example we may take the Sudan, where the religious fanaticism evoked by the Mahdi turned a timid population into a host of daring warriors. When the presence of a few Egyptian soldiers had for years kept the tribes in thorough subjection, it might have been presumed that the former would have easily stamped out the revolt; the events, nevertheless—as we know to our cost—proved the contrary. A war between Mahomedan and Christian races is always liable to this, as the former are made utterly reckless by the promises of the everlasting joys of Paradise, which the Koran holds out to all the true faithful who succumb in fighting against infidels.

Who could have ever expected the peaceful and pious peasants of La Vandée to make such a desperate fight to uphold the cause of royalty in France? The warlike spirit of the Spaniards was

such a thing of the past that Napoleon could have hardly foreseen the stubbornness he would have to encounter in the Peninsula. In his invasion of Russia, could he have foretold that the people would have burnt their homes, destroyed their crops, and turned their country into a barren desert? In Italy and in Germany the French had been fed on the local resources—the only possible means for subsisting large masses of combatants constantly on the move. In Russia, where the number of combatants he led was very large, the resources vanished in the very face of the invaders, offering not only a serious obstacle to their advance, but foretelling untold hardships in the event of the army being compelled to retire.

The work of the intelligence staff need not be entirely carried out at home, for officers may at any time be sent on a mission to gain personal knowledge of any special district. General Jarras, who was Chief of the Staff of the Army of the Rhine in 1870, states that in the summer of 1868 the French staff studied, under his supervision, the territories of Prussia and Bavaria. In the following year several French officers—of whom one was arrested at work—conducted a complete survey of the network of roads and railways leading from Strasburg and Dusseldorf to Berlin. At the same time a German officer engaged in a like occupation was arrested at Chalons.

It is the custom of the Great General Staff of other states to send a certain number of officers abroad on a mission, which may be either of an official or of a confidential nature. Rustow observes on this subject, "Such powers as desire to be prepared to resist an attack or to undertake one themselves should encourage the travels of officers abroad to study foreign armies. Such journeys, nevertheless, should be regulated with intelligence, and the officers who undertake them should be carefully selected." In Germany it is the chief of the Great General Staff who determines which are the points on which it is necessary to obtain complementary information, and he issues the orders for these military journeys both in Germany and in foreign countries.

In alluding to the work of the German staff, Brackenbury observes, "In all cases the chosen ones are employed on real staff duties, and the greatest care is taken, in the case of all staff officers, *not to cloud their faculties by too much routine labour at the desk.*"

Officers sent on a special mission are expected to see the most they can, to scrutinize everything, and to bring back abundant information either in writing or in their mind. They are held to have an advantage over military attachés and other accredited officers inasmuch as they pay more attention to what they come across than permanent officers, as everything which they see, being new

to them, strikes them more. The latter are sure to be carefully watched, and are generally given opportunities to see only what is of secondary consequence.

Officers intrusted with a special mission will ordinarily be sent to such countries in which there is a likelihood of our having to act either as enemies or allies. To obtain information from all possible sources, and to explore the country thoroughly, they must be provided with sufficient means, and a special portion of the revenue of the Intelligence Department should be entirely set apart for this purpose.

The main point is to give an officer, before he sets off on a mission of this kind, precise instructions on all those particulars to which his attention should be principally directed, and to leave it to his intelligence to supplement these instructions by observing and noting any others which he may conceive will be interesting to his chief. Once an officer of known intelligence, application, and power of observation has been selected, he should be trusted to carry out, to the best of his abilities, the programme which has been sketched out for him as a guide.

Though not purposely sent on a mission, an officer may be accorded leave to travel for a certain period in foreign countries, on the understanding that his travels are to be conducted to some useful purpose, and that on his return he will furnish the

Intelligence Department with a detailed report of what he has seen of foreign armies and of the countries he has visited.

In 1806 Napoleon, foreseeing how a war with Prussia was inevitable, sent some of his best officers to M. La Forest, the French ambassador at Berlin, so that they might become acquainted with the movements and concentration of the Prussian forces. In anticipation of the Austro-Prussian war of 1866, Prussian officers had been to study on the spot the ground on which the operations against the Austrians would probably be conducted. Before 1870 the Prussians had apparently done likewise; at all events, Baron v. Moltke, in 1868, made a private voyage, in which he studied the country about the French frontier. The French government was made aware of this, and deputed an officer to follow the chief of the German General Staff and to report minutely on his movements.

In 1882, Major Tulloch (lately Major-General commanding the forces in Victoria) was Deputy-Assistant-Quartermaster-General at Portsmouth. Foreseeing the possibility of England taking part in quelling the disturbances caused by Arabi and his party, he went to Egypt and brought back a large store of information, which was published by the Intelligence Department, and proved very valuable when a few months after an expedition went to that country. When the gallant major was

at Ismailia, in order to conceal the real nature of his work, he passed himself off for an ardent sportsman; as he subsequently returned there at the head of the intelligence staff, he was recognized by one of the waiters at the hotel. The man, recollecting the many inquiries about game that had been addressed to him by the would-be sportsman, gently tapped him on the shoulder, saying, "*Voilà monsieur votre bécassine.*"

A system which Russia has often employed with advantage, especially in Central Asia, is to encourage some enterprising officer to explore the countries beyond her frontiers. Such an officer generally imposes on the rulers, who suppose that he is naturally backed up by his government. In the end, if all goes well, Russia reaps the benefit of the officer's enterprise; if not, to all intents and purposes she disavows any complicity, and declares that he simply went on his own initiative, and that his acts have received no official countenance whatsoever.

As special agents we might employ commercial travellers. Not only would their business hide their employment, but they travel through many countries, they are forced by habit to accost many people, are not shy with strangers, have seen a good deal, and, as a rule, possess a good store of general information.

Not only all that bears on the enemy and his country should be collected in time by the intelli-

gence staff, but every effort should be made to obtain a knowledge of the reputation and character of the commander-in-chief and other generals of the opposite army. Napoleon did not neglect to do this, and we gather from Sir Robert Wilson—who was the British Commissioner accredited to the Russian army—that when the emperor's baggage was captured during the retreat from Moscow, amongst his private papers were found biographies of all the Russian officers in the field against him.

Intelligence of all kind is to be obtained with money. Napoleon kept himself informed of all that went on amongst the great powers of Europe. The utterly unscrupulous dealings on both sides to secure information are singularly illustrated by what occurred before Napoleon commenced his disastrous campaign in Russia.* In 1811 Colonel Czernicheff arrived in the French capital. He was a polished, handsome, and attractive person, ostensibly devoted to nothing but pleasure. Though appearing to neglect all political matters, he nevertheless contrived to secure the services of a poor war-office clerk, whose duty it was to prepare the states which were presented every ten days to Napoleon, and which showed the strength and condition of every arm of the service. Whilst the wily Russian was paying the sum of 300,000 francs for the information thus supplied, and the emperor was complaining of the unfair means employed by

* "Baron Marbot's Memoirs," vol. ii. p. 200.

Czernicheff, General Lauriston, the French Ambassador at St. Petersburg, was buying the engraved copper plates from which the great map of the Russian Empire had been printed. The difficulty of abstracting the plates from the archives of the Russian Government, and their carriage to France without being discovered by the police or by any custom-house official, shows that a very considerable sum of money must have been employed in this shady transaction.

That an underpaid official, possibly burthened with a numerous family, or having a difficulty in making both ends meet, should have been tempted to betray his trust by the prospect of gaining a considerable sum of money does not astonish one very much. What, however, is really surprising is to find officers of high rank involved in a disgraceful transaction of this nature. Baron Marbot relates an incident which he learnt from Marshal Lannes, in which an Austrian general, who had been appointed by the Archduke Charles as deputy-chief of his staff, sold himself to General Andreossi, the French ambassador in Vienna. The archduke, wishing to satisfy himself as to the truth of certain anonymous letters sent to him, watched the house where the two officers were to meet, and, to his intense regret, recognized the deputy-chief of his staff enter the house which had been indicated to him, where he remained closeted with the French ambassador for several hours. As the two emerged,

the archduke showed himself, and the culprit, finding himself discovered, shortly after blew his brains out. It was stated that he had received two millions of francs as the price of his treachery.

Occasionally officers will sell themselves when smarting under disappointment or under a well or badly founded imputation. In the War of Independence, Arnold, though one of the bravest American generals, had been severely reprimanded for misusing public money. To revenge himself, he entered into an arrangement to betray his charge, and to surrender to the British the fort of West Point. Cupidity soon blunts the noblest feelings of our frail nature, and from want of principle some of the most courageous of our kind have for ever tarnished their reputation by doing most dishonourable actions. That as a reward for his treachery Arnold should have stipulated for a brigadier's commission in the royal army was not surprising, but his demands did not stop there, and, to his shame, he bargained for a considerable sum of money.

When, after the declaration of war, the troops take the field, it might at first sight appear that the intelligence staff at home can render no further services to their commander. In reality this is not so, for when two states are at war with each other they continue to maintain amicable relations with the rest, consequently it is always possible to obtain important information from neutral sources. The

military attachés are not withdrawn from the foreign courts, and from their connection with the general staff of those states, from intercourse with diplomatists, and from a careful reading of the daily press, they are often in a position to gather information which may be of considerable value. Other information also may be gained by employing confidential agents.* The rapidity of the post and of the electric telegraph—which in neutral states is not subject to any war restrictions—enables these particulars to be transmitted to the Intelligence Department, and, subsequently, to the commander of the forces in the field.

In 1855, Mons. Rothan was French secretary of legation at Frankfort, and through the agency of a certain Teschen was kept informed of what occurred in the Crimea. The process was simple enough; General de Gerlach corresponded with the Prussian military attaché at St. Petersburg, who kept the general informed of the movements of the Russians, and of the principal incidents of the siege of Sebastopol. These letters were copied by his

* In 1805 Prussia had 100,000 men ready to cast their lot with the Austro-Russian armies, nevertheless the king still hesitated. The day before the battle of Austerlitz, Augwitz arrived at the French headquarters and boldly demanded the reason why the territory of Anspach had been violated. "Go to Vienna to receive my reply," answered the emperor. After the battle, Augwitz—who had secret instructions not to bring about a rupture—came to offer his congratulations. "There is a compliment," said Napoleon, "for which fortune has changed the address."

servants, and these copies were handed over to Teschen, who sold his information to Mons. Rothan.

In Germany, when a war breaks out, the central section of the Great General Staff remains in Berlin, continuing to acquire intelligence as best it can. Secondary sections, which communicate with the central one, are formed at the headquarters of every army and army corps, so that any information gathered at any point whatsoever is at once brought to the knowledge of all concerned.

The legations and consular agents in foreign countries will sometimes find themselves in a position to supply some relevant item of intelligence. According to Mons. Bonnal, a despatch from the French minister at Dresden, dated the 13th of September, 1806, supplied Napoleon—who had been informed that Prussia ardently desired a war—with most complete details of the Prussian army. On the evening of the 3rd of August, 1870, the Prussians received from their consul at Civita-vecchia a telegram reporting that the remainder of the French troops in the Papal States were to embark for France on the 5th. On the morning of the 1st of February, 1871, a telegram was despatched from Berne to the Minister of the Confederation at Berlin, announcing the entry of the French army on Swiss soil. This telegram, which was immediately forwarded to General von Manteuffel, was the first intimation he received that Bourbaki could no longer hold out against him.

The commercial world, being always well supplied with information, should by all possible means be encouraged to communicate with the Intelligence Department.

We can see, by the extraordinary activity displayed by our special correspondents in war, how quickly news of interesting events has been supplied to our press. Immediately after the fall of Metz, a German-American, named Müller, attached to one of the German ambulances, rode at great personal risk forty miles to Esch, a petty village in Luxemburg, and from that place telegraphed the surrender of Bazaine's army to the *Daily News*. At Sedan Mr. Holt White, who was present when General Reillé handed Napoleon's letter of surrender to King William, daringly walked through the battlefield to the nearest railway station in Belgium, and hastened thence to London, where he wrote the first account of the battle, which appeared in a late edition of the *Pall Mall Gazette*. An active agent, well provided with means, could do all this, and his wit would enable him to send information by a roundabout way to one of the belligerent parties, even with the telegraphs of the theatre of war closed to him.

When we talk of employing special agents, why should not the intelligence staff employ as such some war correspondent of well-known ability? It would be a matter of no little consequence to turn to account the great experience which these gentlemen

have acquired by attending armies in the field and at manœuvres, with the sole object of worming out information and interesting the public. They are all up to the dodges of their craft, and have considerable experience in feeling the pulse* of public opinion. By subsidizing a foreign correspondent, it might be even possible to have a reporter within the enemy's lines.

The electric telegraph, the rapidity of the postal communication, the considerable extension of the public press, can render good and bad services to an army in the field. It was stated that during the Crimean war the Russians gained very reliable information regarding the works in the trenches of the allied armies and the progress of the siege of Sebastopol from our newspapers. The telegraph system of Europe was very incomplete at that period, consequently any particulars extracted from the British newspapers must have taken a considerable time to reach the headquarters of the besieged forces. Since that time the most distant points have been connected together, and the wires and cables are now so plentiful that what occurs one day in any part of the world is chronicled the same, or the following day in the pages of the public press.

What was done in the Crimean war has been done since, but with far greater rapidity. In 1866 the chief of the staff of the 1st Prussian Army had an agent in London, who telegraphed to him what

was communicated to the *Times* by its special correspondent with the Austrian army. During the battle of Sadowa that officer received a telegram from London, confirming certain information which he had acquired the previous day in the course of a reconnaissance.* A statement in the *Temps*, read in England and immediately telegraphed to the Germans, gave them the first intimation of Marshal MacMahon's march from Reims eastward, a piece of information which the Germans would have only acquired some twenty-four hours later, and which might have considerably altered the condition of affairs.

The employment of railways for the conveyance of the mails by express trains and by the most direct routes, has rendered the postal service extremely rapid, and the heads of intelligence furnished by telegraph are very soon followed by complete details. The special correspondents, however, are no longer satisfied with sending a preliminary telegram ; but, fully aware of the general eagerness for news, oblivious of the cost, send by telegraph a very detailed account of any important event. To such an extent do they employ the telegraph, that sending narratives by post has come to be recognized by them as an obsolete tradition.

* Knowing how enterprising and indefatigable our war correspondents are, and what an unlimited amount of means they have at their disposal, we cannot feel at all surprised at the reluctance which foreign powers show in permitting them to follow their armies.

Notwithstanding the signal advantages which the electric telegraph confers on a commander in war, it is also his abomination, on account of the great difficulties it raises in concealing his preparations and movements. General Bonaparte would never have been able to reach Egypt in 1799, had there been such a thing as the electric telegraph in his days, for Admiral Nelson would not have been compelled to sail up and down the Mediterranean in search of him. In 1800, he could not have kept his preparations for crossing the Alps a profound secret. He certainly succeeded in deceiving the spies and secret agents by his ostentatious review of a few thousand troops at Grenoble, but newspapers and telegraphs would have revealed to his enemies an unusual movement of troops in the direction of the Alps.

A serious drawback of the electric telegraph, with regard to military operations, is that the orders and instructions can only be communicated through the intermediate of an operator. This work demands individuals, who by force of habit can send messages quickly and correctly; we cannot therefore dispense with the aid of skilful operators, and have very little guarantee that they will refrain from divulging matters with which they may become acquainted in the performance of their task.

At all times, but more so in time of war, newspapers contain a considerable fund of information, and from a diligent perusal of them many things

may be learnt. In the press of those states which take no part in the contest matters are discussed in a more passionless manner. In the leading political newspapers the opinions are given by competent and well-informed writers, and their forecast of events is generally based on good grounds.

In peace certain particulars which the general reader would pass over as being of no interest, turn out of great consequence to such as know how to draw useful inferences from them, and when many of these items are put together they may reveal matters of considerable importance. Many legations abroad have a special section in which all local and foreign newspapers are scrutinized and noted. Officers who read them carefully can acquire by this means much information on many matters which relate to the organization and system of foreign armies. Indeed many *précis* and office reports derive a good deal of the information they contain from what is culled from foreign journals. For information up to date political newspapers are better than military periodicals, for the former are not guided by the same spirit of prudence as the latter, which as a rule show more tact in abstaining from publishing many particulars which might be of use to foreign powers.

Newspapers have great influence on the spirit of the people; in war they often depart from their *rôle*, which is an accurate narrative of events, with the object of demoralizing the enemy. This is

done by suppressing favourable news, and publishing only such as are bad. By this artful concealment of the truth, the press endeavours to engender despondency, to stamp out all resistance, and to keep the opponent from turning to account all its means of defence and all its untouched resources.

Whilst striving by all possible means to know what is passing in other countries, we are bound to try and keep the enemy from knowing what we are doing. We can well believe that, inspired by a true spirit of patriotism, the editors of newspapers will accept any restriction placed on them in the way of publishing news which may in any way be detrimental to our army. The general public is not aware of all the consequences which may arise from such indiscretion. It has no idea of the number of spies or official reporters which abound in every country, therefore it is for the Government to appeal to their better feelings.

The French, who in 1870 neglected to take proper precautions with regard to the press, unwittingly supplied their enemy with many useful items of military intelligence. To give an example, the German staff were at a loss to arrive at the French order of battle, as very few troops had formed part in peace of an army or army corps. All that they could work on were the newspaper reports of the number of regiments coming from every part of France. On this scanty information they, however, compiled an order of battle, which

was communicated to their army as early as the 24th of July, and which subsequently proved not to be far from a true one.* The names of the commanders of the different army corps, and the strength of the corps in infantry divisions, were by this means correctly ascertained. It has been frequently asserted that all that Napoleon III. knew of the German armies in 1870 he gathered from English newspapers.

When Bonaparte was forming his army of the Alps in 1800, he forbade the press from publishing anything which related to military movements by land and by sea. The Germans, likewise, in their last war, endeavoured to keep the enemy from acquiring any information through the press. On the 16th of July, 1870, Count Eulenburg, the Prussian Minister of the Interior, addressed a circular to the German papers, recommending them to abstain from giving any news, however insignificant, with regard to the movement of the troops.

* "German Official Account," vol. i. pp. 59, 60.

CHAPTER III.

INTELLIGENCE STAFF IN WAR.

THE acquisition of information, in the sense referred to in this study, does not form part of the ordinary routine of staff duties in peace, and an officer would find himself embarrassed if suddenly detailed to assume charge of it in war. After a long spell, during which he had not been called to exercise his powers of observation to any very considerable extent, or to contend against the cunning and artfulness of his fellow-men, he would be hardly in a condition to do full justice to it. The subject demands a special knowledge, and cannot be looked upon but as a study of itself.

Were the duty of acquiring information in the field to form a component part of those assigned to every staff officer, there can be little doubt that, burdened as they are with many matters of routine, detail, and correspondence, they would find little leisure to devote to it. For this and for other reasons it appears to us that this important section of staff work should be kept entirely distinct from the rest,

and should be intrusted to some officers specially selected in virtue of the aptitude they possess for it. Under the orders of the general commanding, these officers would regulate the intelligence service of the army, concentrating their attention entirely on all the means which can be employed in acquiring information. It should be their special duty to utilize every possible source of intelligence, and to probe all that has been acquired, so as to present it to the general in the most complete and reliable form.

For this purpose we need officers who have talent, certain natural gifts, and a fair amount of experience. Only officials who have been trained in the intricacies of the detective service are of any good in unravelling a mysterious crime. The reason for this is explained on the score of habit; they thus gradually become familiar with many indications which lead to the discovery of the truth. They can form certain hypotheses; they allow nothing, however trivial, to escape their attention; and, steadily working from some trifle, which an inexperienced police officer might overlook, generally arrive at very convincing proofs. The same applies to the intelligence officers: they must be carefully trained; they must learn the exact description of information which will be most useful to their general; they must be made familiar with the various means by which it can be obtained; and they must be taught by what system of

reasoning, and by what comparison of conflicting particulars it becomes possible to distinguish true from false reports.

We have but to consider the importance it is to a commander to be correctly informed, to see what pains he should take to gather around him an efficient intelligence staff.* Indeed, we might say that one of the best proofs of his talent lies in the selection of these officers.

The committing of this duty to a number of specialists would in no way relieve the rest of the staff from making the necessary reconnaissances, or for keeping themselves well acquainted with the doings of the enemy. The intelligence section would form part of the general staff, and in everything that refers to information all officers alike are bound to co-operate.

Rustow states that in Napoleon's armies the chief of the staff had a special office for the conduct of secret affairs and diplomatic correspondence. This office was endowed with funds, which were partly destined for espionage on a large scale.

Mons. de Freycinet—who was Gambetta's right-hand man during the latter part of the war of 1870-71—gives the following account of the

* When Marshal Suchet—who had for a long time been employed in Spain—took over the command of the army of the Alps, after Napoleon's return from Elba, he took with him Mons. Beaumont-Brivazac, who had formerly been his director of police and secret service in Catalonia.

measures taken by the Tours Government to establish an intelligence office.*

"The intelligence service has for object, as its name indicates, to gather a mass of information on the enemy, which up to this day had been entirely wanting. I am, indeed, of opinion that, even under the Empire, no trouble had been taken to organize this intelligence in a systematic manner. When we arrived in office nothing of the kind existed; not even the funds had been provided for this service. The ideas on this point were so far opposed to this kind of investigation, that it was one of our greatest difficulties to get the generals to spend the secret funds allowed to them for this purpose. This prevailed to such an extent that, having obtained a warrant for a sum of 750,000 francs as a first instalment, notwithstanding my greatest efforts I was not able to disburse more than 300,000.

"Whatever may have been the reason for this, there was in some of the army corps, and above all in the central administration, an earnest foundation of such an organization, which rendered good service. The bases for it were laid in a circular dated October 24th. The information was furnished to the central administration by special emissaries, who travelled incessantly about the departments, and who strove to cross the Prussian lines, also through fellow-labourers of a most promiscuous kind, such as mayors, telegraph-workmen, wood-

* "La Guerre en Province," par Charles de Freycinet, p. 25.

rangers, overseers of roads and railways, etc. These agents, by reason of their employment, were more or less acquainted with the movements of the enemy, and could inform us without attracting any notice. There was thus something like a network of volunteer watchers all over France. Other sources of information were found in the translation of German documents and correspondence found on the enemy. Lastly, a regular interrogation of prisoners was carried out; an operation in which Mons. Amilhan, an old member of the courts of justice, and Mons. Desnouettes, a superior officer of the gendarmerie, directed with a good deal of tact and artifice.

“Little by little the Intelligence Office assumed a greater extension. Its chief, Mons. Cuvinot, though by his calling of engineer strange to this kind of work, showed a real vocation for it—what might be called love for the art. With relatively straitened means and a quite recent organization he managed to obtain important results. He had placed himself in constant communication with the corps commanders and had come to furnish them every evening with a circular, showing the positions of the enemy, and often even with the number of the regiments. He had some very able agents; one of them lived, for two months, in the midst of the Prussian headquarters, and from time to time brought us back most detailed information; one will easily understand the reasons which prevent

my explaining myself more on this point. It was also an agent of Mons. Cuvinot who, in the month of December, obtained for us a plan of the works of investment round Paris, stolen at Versailles from an officer of Mons. de Moltke's staff."

The officers for the intelligence staff should not be taken at random. According due weight to the serious difficulties they will have to contend against, they should be even more carefully selected than the rest of the staff. Not all officers are by nature fitted alike for it, as attainments are needed which lie beyond the strict limits of professional knowledge. Men possess a quick understanding, inquisitiveness, shrewdness, and readiness of resources in different proportions; very often these are more special gifts of nature than the result of steady plodding application.

The officers best qualified for the intelligence service are those who possess a deep knowledge of human nature, which is the result of much reflection, who are very observant, who are gifted with a very retentive memory and a calculating turn of mind, who have the knack of worming themselves into the confidence of their fellows, and can beguile them to speak, who have by study acquired an insight into all the ruses an enemy is likely to employ, and who are familiar with all the means which can be turned to account in ferreting out information. The sharp man of action, who can grasp quickly the truth, and loses no time in letting

his report reach its destination, is the best officer for this kind of duty.

Unfortunately work in peace time offers little opportunity for detecting such officers as have a special aptitude for the post. Some who are very expert in drawing up a brilliant *précis*, in culling many items of interest, in working up statistical papers comfortably in an office, with any amount of books of reference and reports, are quite at sea when put to this work in the field under utterly different conditions. Experience, in fact, has repeatedly proved that creditable work in ordinary times is not a sufficient test of ability under difficult and unfavourable circumstances.

Purely office work is injurious to all true military spirit, and to that intimate relation which should exist between the officers and the soldiers. For this reason it is held that every period of staff service should be invariably followed by a period of regimental duty. General Bronsart von Schellendorf,* alluding to this point, when treating on the organization of the German staff, says, "As the necessity of the periodical return of general staff officers to regimental duty was shortly afterwards acknowledged." Having a number of officers lying idle on half pay, waiting for another staff billet, is a wrong system. The only way to accelerate promotion with real benefit to an army is to weed out the indolent and incapables.

* "Duties of the General Staff," vol. i. p. 31.

Officers who are trained for the staff no doubt in their two years' course at the Staff College receive a certain instruction on the matter of information, but so many are the subjects which have to be learnt in a very limited space of time, that it is barely possible to master any one thoroughly. In point of fact the lessons acquired at the Staff College can only be looked upon as the beginning of a serious military education. The art of war embraces such a variety of matter, that it may be well said that the life of an officer is not long enough to acquire a wide knowledge of all its branches. The longer an officer studies the more he will find that there is still something for him to learn.

Though most officers realize the great importance of information in war, there are possibly very few who have devoted much attention to the means by which it can be acquired. Works treating on this subject are scarce, and, as a general rule, most military histories omit to detail the measures taken by a commander to know all that he could possibly ascertain with regard to the enemy he had to contend against.

The acquisition of information is so surrounded with impediments, is affected by such a variety of circumstances, that there is little prospect of an officer becoming a thoroughly useful intelligence officer in the field, unless he takes up the subject as a speciality. The difficulty in the formation of

a good intelligence staff in war, on the score of the little opportunity there is for detecting such officers as have a special aptitude for this work, is not the only one, for the personal experience that can be gained in the peace manœuvres is very limited, owing to the insufficient analogy there is between these and the actual conditions of war.

Looking at the fact that the intelligence staff must naturally commence operations with the mobilization of an army, it appears to us that amongst other preparations for war there should be a permanent cadre for this service, which cadre should be recognized in the order of battle. To train officers for service in this cadre in war, a certain number could be detailed to study the subject in a special manner, being given every opportunity for acquiring, beyond the precincts of the office, whatsoever personal experience may be gathered in mimic warfare. If at the conclusion of the yearly manœuvres the generals commanding were made to report confidentially on the qualifications of each one of these officers, and on the likelihood or otherwise of his making a good intelligence officer in the field, there would be little difficulty in making a right selection when the moment comes for filling up the cadre at the outbreak of a war.

However poor this suggestion may appear, it will be better than letting the matter rest, and having at short notice to detail officers for the intelligence staff who, good as they may be in all

other particulars, may not have given much of their attention to this subject.

The indefatigable special correspondent who is ubiquitous, who is all ears to pick up any interesting detail, who has to contend against the secrecy with which the most important operations are guarded, who does not scruple to pester any one with questions in the pursuit of his calling, whom no difficulty, no obstacle can dishearten or drive to desist in his efforts, is to a certain extent an example of what an intelligence officer should be. A special correspondent, however, is only responsible to his employer for any lack of correctness or enterprise; if what he reports is not up to date or is incorrect, the credit of his newspaper alone suffers, whereas, with a staff officer, any failure or delay in acquiring information, or any erroneous conclusion he may arrive at, may lead to deplorable events.

The means which armies possess in themselves for gaining information through the cavalry divisions, by scouts or patrols, and from special reconnaissances, are by some writers considered of more value than what can be obtained from other sources. The general information secured by these means has nevertheless a limit, as the difference in the language cannot but stand seriously in the way. Undoubtedly much relevant information must be lost when people cannot make out each other's speech. In the secession war in the United States, in which both the Federals and the Confederates

spoke the same language, or at the opening of the Franco-German war, in which the language of the French border provinces was familiar to the invaders, the acquisition of information was a comparatively easy matter; but let us take the case of a French army operating in Germany or in Russia, and we shall readily appreciate the difference. Not merely in the point of speaking, but in others too, for if we imagine a Federal officer pouncing on a telegraph station, by seizing the office copies of telegrams he could have become possessed with some important item of news, which would have enabled him at once to take the necessary measures. This would not be the case with a French cavalry officer who could not read German or Russian. The documents could be certainly sent to the rear to be read, but this would entail a loss of time, and a golden opportunity might be lost.

Cavalry officers covering the front of an army can gather very valuable information by questioning the inhabitants; nevertheless, here the same difficulty crops up, and, as the cavalry so employed is spread over several miles of country, it is nigh impracticable to place by the side of each officer a competent and reliable interpreter.

As an instance amongst many where the knowledge of the enemy's language helped in deceiving him, we will quote what occurred on the night when Wolfe led his troops up the heights of Abraham. As his boats drifted down the St.

Lawrence, the tide bore them towards the shore. In the dead stillness of the night a French sentry suddenly challenged the leading boat with a "Qui vive?" An officer of Fraser's Highlanders, who spoke French fluently, replied, "France." "À quel régiment?" "De la Reine," answered the officer, for he knew that that regiment formed part of Bougainville's force then encamped up the river by Cap-Rouge. Shortly after another sentry challenged them, when the same officer replied that they were provision boats, adding, "Do not make a noise, the English will hear us." But for the answers having been given in French, with promptitude and judgment, either of the two sentries would have raised the alarm.

This example shows the value of such officers who, to their other attainments, join a good colloquial knowledge of foreign languages. The marks allotted in army examinations, let us observe, are not a fair test, for many of the officers who have scored high marks in grammar, literature, etc., shortly after their studies have ended find the greatest difficulty in asking the most simple questions, and even more in engaging in an ordinary conversation. It is the colloquial part, which, being of the greatest value to an officer on service, should be made the standard of efficiency in foreign languages.

The work of the intelligence staff demands great industry and unremitting attention. It is necessary in the first place, to see that no pains are spared in

getting information, and that none of the known means for acquiring it are neglected. One of the most difficult parts after this lies in forming a correct estimate of such information as comes to hand, for it requires considerable acumen, and more than ordinary powers of discrimination to reconcile conflicting statements, and to detect the amount of truth that each one contains. A man of penetrating intelligence alone can gauge each source of information, can calculate the distances and the hours, can reconcile several particulars apparently strange to each other, group them together, and draw logical conclusions. As a general rule, more can be got by carefully sifting and comparing a number of reports coming from different sources, than from any truthful report received from one individual. Two items of identical information indicate a probability; by three or more, coming from different quarters, we arrive at a certainty.

Considerable skill is required to pick up some small item which may be of real worth out of a mass of irrelevant matter. Much patience also will be needed in putting a number of trifles together, and to form from the whole a picture which will throw some light on the general state of affairs or on any particular circumstances. Baron v. d. Goltz states that on the capture of a balloon mail, many thousands of letters, written on little scraps of thin paper, fell into the hands of the troops besieging Metz. When these communications

had been put in order, when the names and addresses of the senders had been compared, a pretty clear idea could be formed of the distribution of the enemy's forces within the forts, of the situation of the various camps, and of the disposition of the besieged.

An intelligence officer needs a well-balanced mind. As much of the news which he will get will be contradictory, questionable, and often entirely false, he must abstain from according too much faith to any reports which reach him. He must not be swayed by either fear or hope, and must strive to find out what amongst the information he receives is really worthy of credence. The power of detecting true from false news is a great gift; it may be acquired by methodical reflection, by a careful comparison with analogous cases, by a just appreciation of the worthiness of the source from which it has been obtained, and by a knowledge of the characteristics and habits of the enemy. It is more easily acquired by an officer whose mind is concentrated in the work he has in hand, and who is familiar with the existing circumstances. The reputation and individuality of the person who furnishes the information must always be taken into account, as more confidence can naturally be accorded to the statements of any individual who has already given proofs of acuteness and accuracy.

The statements and reports, as they are received,

must be carefully analyzed and compared with each other; if very contradictory, it will be prudent to send out for further information, so as to be in a position to determine which are true and which are false. The latter need not always be so intentionally, for they may have their origin in faulty or insufficient observation, in too great a haste, in timidity, or in jumping at a wrong conclusion. Absolute certainty is not always attainable, and when an officer is perplexed by conflicting statements and reports, so as to be unable to decide which contain most truth, he must necessarily fall back on the law of probabilities. In his perplexity he will form several possible suppositions, and, when the most cogent reasons preponderate in favour of one over the other, there will be less danger of falling into error.

The aim of the intelligence staff on service is to acquire all the information which may be useful to the general commanding, and which will show him the state of things at any given moment. It is only for him to draw proper conclusions from a thorough consideration of the total information gathered from every possible source. The staff would be descending into a matter which is quite beyond their province were they to try and influence his decision by a too forward submission of their views. When so invited, they may, possibly, from the knowledge they possess of the actual situation, be in a position to offer some valuable

suggestions ; still, it behoves them to refrain from doing so until they are asked.

In the course of the operations a vast number of documents, letters, telegrams, and papers of all kinds will be seized. These belong by right to the general commanding, and must be delivered to his nearest representative at the very first opportunity. To gather the information which these documents may contain can only be done by individuals who are familiar with the language of the invaded country. A special section of the intelligence staff should be formed to attend to this matter, with duly qualified experts for translating and extracting all particulars which refer to the actual state of affairs.

An essential point is not to keep back any intelligence of great consequence, waiting until it has been corroborated from other sources, but to communicate it without delay to the chief of the staff or other officer concerned. The earliest possible information is what is wanted ; not only therefore has the news to be got, but the means for transmitting it must be well organized and swift.

The officers of the intelligence staff should not be all kept at headquarters ; some should be attached to the cavalry divisions, for the nearer they can approach the enemy the better they will be able to perform their special duties. Not only does the large extent of front covered by the cavalry make it very desirable to have some arrangement for tabulating the information as it comes in, but the earlier

the prisoners and deserters are interrogated the better, as the information they are able to give will cease to be of value with a change in the circumstances.

Notwithstanding the latitude which should be accorded to the cavalry officers who explore in advance of the army, it is very important to detail some staff officers to regulate the reconnoitring of the country and of the enemy. A scout, a non-commissioned officer, or even a subaltern officer will often lack the experience necessary to assign the real value to the information he acquires. Only officers, who are more highly instructed, and who are better acquainted with the general state of the situation, are in a position to estimate its importance, and to draw from it correct inferences. The information gathered by the cavalry patrols is of a very general kind, and has no special reference to the ideas of the general commanding. It will therefore be judicious to have one or more officers to collect it, and to determine what special bearing the whole of it has on the intentions which prevail at headquarters. Whilst the troops thus gather the particulars, the staff officers would occupy themselves with the whole, draw the necessary conclusions and communicate their impressions to their chiefs. In other words, they would scrutinize and transmit the information acquired. This course was followed by the Germans in 1870, and in the days before the battle of Sedan, staff officers from

the general headquarters accompanied the cavalry in order to ascertain exactly the situation of the enemy.

These officers would receive from the chief of the staff a general idea of the actual circumstances, from which they would indicate to the cavalry officers what particulars it is most necessary to ascertain each day. Leaving the acquisition of information simply to the discretion of a number of individuals, without any central guide to direct their efforts in the most profitable manner, does not appear the best plan; acting thus we are liable to waste our exertions in a wrong direction.

A few words about an indirect source of information which is often overlooked. It is always possible for the military police in their many duties, for the officers of supplies, through the medium of contractors, drovers, etc., for the officers of the general transport, through their drivers and artificers, to become possessed of some items of news which, when totalled up, may bring to light something of importance, or something which may tend to confirm some piece of doubtful information already obtained. Officers or soldiers may attach little importance to what they have seen or heard in an unofficial capacity, to certain rumours in circulation, but there is always a chance that it may be news even for those who have the intelligence service of the army as their special charge.

All ranks alike must not wait until they are sent

in quest of information. They all should make it their constant business to be all eyes and ears, for any one may fortuitously become possessed of some particulars which may be of the greatest consequence in the course of the operations. Every individual therefore should be enjoined to communicate to the proper officers any matter bearing on the war, which by chance may have come to his knowledge. However, if the troops are not frequently reminded of this obligation, we can hardly expect that it will suggest itself to them.

An officer, one who is fairly acquainted with the language of the country, might be appointed in each regiment as an agent of the intelligence staff. He would come in very useful in collecting all the news brought in by detachments, individuals, or camp followers; what is picked up at the outposts, what comes from the inhabitants, from deserters, prisoners, travellers, and sometimes even from the enemy. In many instances when a regiment is acting alone, he could conduct an interrogatory, examine captured correspondence, and perform in a small way duties analogous to those of the intelligence staff officer.

Some system for communicating the actual state of affairs to the commanders of army corps or of any detached portion of the army will have to be organized. This may be done by telegraph, by visual signalling, by the despatch of orderlies, couriers, etc.; and in some special cases through

staff officers who have the confidence of the general commanding, and who, previously to their departure, have been carefully instructed in all that bears on the exact situation of the army and of the enemy.

Reticence, on the whole, is a great point; nevertheless it is an error to push secrecy beyond its just limits, for there are many officers in an army who must regulate their arrangements and foresee the necessities of the troops on the exact nature of any intended operations. Desirable, therefore, as it must always be to keep the general's plan a profound secret, it can seldom be carried into execution without being confided to a trusty few. It may often be for the good of the army to publish certain items of information. No danger will be incurred thereby when the things published have reference to what has already happened; the talent lies in not letting anything leak out of what is about to occur.

The Secretary of State for War has the right to receive the first news of military events, without which he will be unable to take immediate steps to repair the waste caused by battle or to reinforce the army in the field. Staff officers may be at any time directed to prepare summaries of the operations, or to draw up an account of any events which may have occurred; how much of the intended operations are to be reported home is a matter for the consideration of the general commanding. The

less the Government knows of these the greater the chance of the general being left to his own devices. All men alike are not gifted with the same measure of prudence, and individuals who have no just idea of the immense importance of secrecy in war, may in an unguarded moment let out something of great consequence. There is no knowing what such indiscretion may lead to, for during a war there is no lack of men in the enemy's interest eager to pick up and convey to him anything which it may be profitable for him to know.

Information regarding the strength, movements, and doings of the enemy is not all that is needed in war. In addition we must become familiar with the nature, features, and peculiarities of the country ; for all this has considerable influence in marching, camping, and fighting. We must inquire into the extent and location of the resources of the theatre of war, so as to be able to turn them to the best possible advantage ; we must fathom the disposition of the inhabitants ; we must estimate what injury they may do to us, and thus determine the number of troops that will be required to keep them in subjection. We will not say that information on these several points can only be acquired through the agency of the officers of the intelligence service ; nevertheless, in the course of the operations many missions, in which the object will be to gather details on these various subjects, will be intrusted to them. This is but natural, for the inquisitive

character of their speciality makes them pre-eminently adapted for it.

Some writers consider that it is prudent to enshroud the acquisition of information in mystery, and to keep the army at large ignorant as to the officers who have the management of the intelligence service. It appears more than doubtful, however, from the very nature of their employment, if they can be kept from being known. After all, there is little to be gained from this, for their duties are of a very confidential character, and their prudence and reticence are points on which the general commanding should be able to count.

The number of staff officers reserved for the intelligence duties must naturally bear a just proportion to the size of the army. Taking into account the amount of outdoor and indoor work they will have to attend to, the many missions for which they will be required, and the necessity for attaching one or more to each large unit of the army, their number must in any case be considerable. The establishment will have to be completed by the addition of an adequate number of confidential clerks and interpreters. The clerical part might be intrusted to junior officers, for not only can a certain measure of reliance be placed on their prudence, but they may come in useful, when necessary, to undertake small missions. The same will not apply to interpreters, who must be taken the best way we can. From the nature of their work,

questioning, translating, and the like, it is impossible to prevent their acquiring a certain insight into the state of affairs; still, every effort must be made to secure their reticence.

In a service in which there are so many different things to attend to, the work must be fairly partitioned amongst its several officers. Though the acquisition of information is their common aim, still some must acquire it by personal reconnaissances, others by supervising the espionage and by interrogating prisoners and deserters, others by attending to the translation of captured documents and other papers, and others by sifting, comparing, and tabulating all that is forthcoming from the different sources. To curtail labour, and to prevent that waste of industry which always arises when two officers are doing the same work, the chief officer, whom we might call the Director of Military Intelligence, will have to arrange for a careful subdivision of the intelligence service into distinct branches, selecting for each one the officers who have a special fitness for one particular section of the work. The scope of each branch must be marked out with precision, and nothing should be left to option, for it is when certain matters do not form the special business of any particular individual, but are general to many, that they come to be overlooked.

In petty wars, conducted, as most of ours are, against a semi-civilized or savage nation, the

intelligence staff will experience the utmost difficulty in securing any kind of information. The reason for this lies principally in the great difference that exists between the conditions and customs of such countries, and of those which have benefited by the softening influence of Christian civilization.

In wars of this nature there is little to go upon. We cannot form an estimate of the enemy's numbers, for very little is known about his military system or spirit; all we can be almost certain of is that every male adult will bear arms against us. We cannot surmise where the bulk of the hostile forces will assemble, and what other tribes may not be induced to make common cause with our adversary. The country is very superficially known to us. We can form no approximate conception of its sources, for any information previously gathered at this point has no reference to a sudden increase of people in one locality. The maps are very inaccurate, there is no information to be gathered from newspapers, little dependence can be placed on allies or friendly natives; the spies and guides we may employ will be more than ever likely to betray us, as they excel in cunning and deceit. The conditions, moreover, are very unevenly balanced, whilst we are precluded from obtaining information of the enemy by any of the usual means, the people, being allowed free admittance to our camps, and moving unmolested along our lines of communication, are always in a position to reveal

to him what is being prepared against him. These countries, in short, are more thoroughly closed to us than would be the case in a war in Europe.

In contending with people who give no quarter, and are full of treachery, it is of little avail to push forward small reconnoitring parties to seek for any information regarding the enemy. As all the male inhabitants possess arms, the fact of their appearing peacefully inclined is not the least criterion of their intentions, for they can at any moment gather together to overpower a small party. If the population is stirred by fanaticism, as, for example, in Afghanistan and in the Sudan, it becomes impossible to win over any influential individuals, by whose assistance we might hope to get an insight of the enemy's doings and intentions. In this they may be deterred by the very fact that the occupation of their country being only temporary, traitors to the national cause would certainly fare badly on the withdrawal of our forces.

In any case the good faith of any individuals who may spontaneously come forward to assist the invader is very questionable. We must bear in mind that we shall have to deal with individuals whose ideas, principles, and manner of acting are entirely at variance with our notions; with whom to excel in astuteness and deception is a commendable ambition. We shall have to treat with men whose life is full of trickery and intrigue, who can assume such an amicable attitude, and make

such a show of favourable dispositions, as will often mislead the most wary.

Under such conditions the intelligence officers will be called upon to undertake a very arduous and disappointing task, often with very humiliating results. Whilst made answerable for the state of ignorance in which we are kept in all that relates to the enemy, very little allowance will be made for the difficulties against which they have to contend.

The measure which has been found to answer best in cases of this kind is to organize a special body of scouts, taken from the best tribes, and to use them in place of the cavalry screen. The formation of a body of this description will form part of a subsequent chapter.

The acquisition of intelligence in war is a very laborious undertaking, and requires talent, energy, continuous application, and courage. The last is not the least quality, for, in the execution of his task, an intelligence officer will have often to display much daring and brave very serious risks. We admit that there is very little field for a service of this kind in peace, and that, unfortunately, the opinion prevails that it can be easily organized in time of war. We do not share in the latter, and are convinced that a service which will have to begin working at the very first moment after the declaration of hostilities, requires to be very diligently systemized beforehand. All that regards

the intelligence service in war, its establishment, its organization, its system of action, have a right to a prominent place in our regulations; and, as an organization is of no practical use without a cadre, no opportunity should be lost to train, as we have already recommended, a certain number of officers in this special branch of staff duties. Acting thus, we shall have a body of competent experts to detail for this service in the hour of need.

The efficiency of an army as a fighting instrument depends not only on a sound training of the combatants, but on a practical and far-reaching organization of all those services which are indispensable for the proper conduct of military operations. These adjuncts can no more be improvised at any desired moment than the army itself. War cannot be conducted according to individual ideas, but in compliance to a given method. It is of no avail to indicate what should be done in an aphoristic and general manner, when real talent is rare and mediocrity is the rule. A *modus operandi*, as a proper guide, must be laid down for each special service, and all that in any way relates to its establishment, functions, and system should hold a conspicuous place in our preparations for war.

CHAPTER IV.

CAVALRY COVERING THE FRONT OF AN ARMY.

NOTWITHSTANDING that the destroying effect of modern firearms has to a certain extent curtailed the action of cavalry on the battle-field, the services which that arm can render in war continue to be of the highest value. Amongst these, covering an army in the field, exploring and feeling for the enemy, can be justly reckoned as the most important. When we look at the last war between the two most powerful military nations in the world, we cannot fail to admit that the services which the German cavalry rendered by concealing the movements of the invading armies, by reconnoitring, and by harassing the enemy, were of far greater consequence than its performances on the battle-field.

Instead of relegating the cavalry to the rear of the marching columns, by a more rational employment of that arm the mass of the horsemen are thrown far in advance of an army, with the double object of concealing its numbers and movements, and of laying bare those of the enemy. To secure

the first of these objects, the cavalry must form an impenetrable screen a good distance ahead of the main body of the army; to gain the second it must act with considerable boldness and enterprise, for a large measure of audacity is indispensable, to explore to some purpose. In referring to the orders issued for the advance of the 5th and 6th Cavalry Divisions in July, 1870, the official account of the late Franco-German war expresses itself thus: "This body of cavalry was to establish itself at a short day's march on this side of the frontier, and from thence carry out constant enterprises against the enemy with squadrons and regiments, to keep an unflagging watch on the frontier, and to find and keep the touch of the enemy." *

The duties which the cavalry divisions have to perform may be summed up as follows:—

1. During the period of the strategical operations, to conceal the movements of the main body of the army on one hand, on the other to unveil those of the enemy.

2. In the battles, to act on the flanks and rear of the enemy, and to form a reserve at the disposal of the general commanding in chief.

3. At various times, to effect raids at a distance on the lines of communication and supply of the hostile army.

The cavalry has to watch and obtain information about the enemy, to ascertain the direction of his

* "German Official Account," vol. i. p. 73.

march, the strength and composition of his forces, and his intentions.

By a correct employment of this arm it therefore becomes possible for those who are responsible for the conduct of military operations to gauge the extent of the adversary's power and to fathom his designs.

The object of the cavalry covering the advance of an army is twofold—to conceal adroitly the situation and movements of the main columns, and, by keeping touch with the opponent's foremost troops, to procure for the commander-in-chief that constant information which he so urgently needs to direct in a becoming manner the operations of his army. Not only is the information gathered by troops specially trained for the purpose worthy of more credence than what we are likely to secure from other sources, but it is also of greater value, being that of the actual moment. This, however, is subject to two conditions—that the scouting parties are pushed forward as far as they can get, and that they transmit any item of relevant importance to the rear as swiftly as practicable, for from one moment to the other the circumstances are liable to undergo considerable alteration.

On the point of concealing the movements of the army, Von Schmidt expresses himself thus: "The more the enemy sees himself surrounded by 'points' and patrols only, which avoid him but constantly return again, and not by tangible bodies,

the more certainly will every attempt he may make to break through be frustrated, and less will he be able to avoid perpetual observation and attain any information himself."

Colonel Borbstaedt makes the following observations on the action of the cavalry screen in 1870. "In advancing from the Sarre to the Moselle, the Second German Army was preceded by her cavalry divisions. On the 9th of August, the line forming a cordon, extended from Sarre-Union to Gross Tenquin, Faulquemont, Fouligny and Les Etangs, and their patrols pushed forward up to the neighbourhood of Metz. Thanks to this screen, which concealed their movements, the army corps, echeloned eight or ten leagues in rear, could perform their march in perfect security, without being subject to be brought to a sudden stand by the unexpected appearance of the enemy, or having to deploy unnecessarily. Moreover, the general-in-chief, by receiving numerous reports from all the cavalry patrols, could form an idea of the enemy's movements, and consequently direct his army corps in such a manner as to preclude useless marches and counter-marches."

The cavalry screen curtails the hardships of the outpost service, for an army which is well protected by its cavalry, will not only march, but will also repose with greater security. This security which the cavalry procures for the rest of the army is very valuable, inasmuch as it enables the bulk of the

combatants to fight in the best of spirits and physical condition. A judicious employment of cavalry will prevent surprises, panics, wasteful marches, loss of time, useless efforts, and unnecessary fatigues. Indirectly the forward position assigned to this arm will secure other objects. It will give staff officers an opportunity for proceeding in advance of the columns to study the various positions, and to select suitable ground for camps or bivouacs; it will facilitate the alimentation of the main body, for the cavalry can serve requisitions for food, forage, and fuel for the troops that are coming up; and it will fill the population with a sense of the power, boldness, and confidence of their adversary, which will have great effect in preventing the inhabitants from taking up arms and rising to resist the invasion.

The bulk of the cavalry is now organized into independent divisions, generally composed of three brigades—two of light and one of heavy cavalry. The remaining squadrons are attached to the several infantry divisions of the army, to search their front, to foil any surprise, to prevent small detachments of the enemy's cavalry from approaching the advanced guards or overlooking the march of the columns, to keep up communication with the troops in front and in rear or with the lateral columns, and to furnish the necessary patrols and orderlies.

The term "independent cavalry divisions" was adopted to indicate that this portion of the cavalry has a special organization, is kept entirely separate

from the heavy columns of the army, and acts under the immediate orders of the commander-in-chief. No army-corps commander has a right to interfere with the special task which he may assign to it, and so that all the information gathered by this source may reach him at as early a moment as practicable, it must go to him without filtering through other channels.

The cavalry divisions thus precede the main body of the army and cover its front and flanks. Whilst their object is to conceal from the adversary the dispositions and movement of their own army, they follow him step by step, harassing his forces, discovering his movements, and endeavouring to penetrate his intentions. The cavalry divisions must be early in the field, for they must act during the mobilization and concentration of the enemy. Being the first great units launched against the foe, they must be formed in peace and not improvised in war. Rightly handled, they will force him to abandon a vigorous offensive, from which he might have expected to reap signal advantages. As Baron v. d. Goltz very justly remarks, "the best tool for enabling one to take the initiative in a campaign is a numerous cavalry."

The battle of Vionville showed that cavalry is needed for other purposes than exploring and transmitting intelligence. A strong body of cavalry is a most valuable instrument, which a general may employ at a very pressing moment, either to hold

a too venturesome enemy at a distance or to use offensively, so as to gain time for the arrival of other troops.

Daring enterprise adds to the force of an army ; it inspires its ranks with self-confidence, while at the same time it generates despondency and want of assurance amongst the enemy's troops. Three-fourths of the power of cavalry lie in its moral effect, and the moral quantity of the two contending sides is never nicely balanced. One is confident, the other timid, and the confidence of the first increases with the timidity of the second ; hence the saying that to expect defeat is nine-tenths of defeat itself. To be strong, the cavalry must be massed under the orders of its chief ; to obtain success, it must act with rapidity and decision. As the side which acts with most vigour and rapidity will always secure the preponderance, a leader should press his enemy, sword in hand, from the very first, for thus only will his troops gain that moral superiority over their opponents which is so much desired. Nations which have a good and numerous cavalry, by constantly harassing the enemy, attain in the end its complete demoralization.

As a general rule, of two armies the one which can place the largest number of cavalry in the field has a great advantage over the other in all that relates to exploring and acquiring information. Exploring can only be done by troops which are able to move with great rapidity, which can go far

in advance of the main body, and can retire speedily when threatened by superior forces. Cavalry is the only arm of the service which can do all this.

To conduct the exploration with good results is a difficult matter, and demands a thorough knowledge of all the objects which it is intended to attain. These are—

1. To discover the enemy, to gain touch of him, and to maintain the contact.

2. To cover thoroughly the main body of the army, to prevent the adversary from approaching it and thus getting an idea of its movements, or penetrating the intentions of its commander.

3. To pierce the adversary's screen, and obtain clear indications of his dispositions and designs.

4. To give timely notice to the troops in rear of any impending offensive movement.

5. To acquire a knowledge of a given district in all that relates to the characteristics of the ground, the condition of the communications, the nature and extent of the local resources, and the attitude of the population.

To gain useful information it is essential to be able to advance with a certain freedom in the enemy's direction ; the exploring patrols, however, will meet with serious obstacles when a country is overrun by the unfriendly horsemen. This will render it necessary to search for the main body of the enemy's cavalry, to beat it and drive it back on its infantry. When this has been done, then it

will be possible to conduct the scouting service with some prospect of success, as the enemy's screen will be pierced with little difficulty.

Now that the correct employment of cavalry has received a further illustration in the last Franco-German war, it is natural to foresee that in a future case the two contending forces will pursue the same tactics. It is this which has given rise to the general opinion that the next war will commence with a great and long cavalry contest. It cannot be otherwise, for it is impossible for two bodies of cavalry to keep close to each other without coming into contact; sooner or later the strongest of the two must drive the other away. This again indicates the necessity for being very strong in that arm.

Many officers have allowed themselves to be carried away by the enterprise displayed by the German cavalry in 1870, as if a new system had been discovered. In reality the German cavalry leaders only acted in conformity with the principles laid down by Frederick II., and pursued with such good results by the French cavalry in the Napoleonic wars. The adoption of the same method by both sides will not give the superiority so entirely to one, and will render, in future, clearing the way for an army more difficult than it was in 1870.*

* The action of the Russian cavalry in their last war was disappointing. Gourko employed his cavalry to some effect, but on the right flank reconnoitring was so badly performed that Osman Pasha's advance was not detected, and his sudden appearance at Plevna had all the elements of a surprise. In that war, on both sides, scouting was inefficiently performed.

The advantages in the matter of exploration will then rest with that side whose cavalry, being strongest and best handled, can succeed in driving the other off the field.

The events of the last Franco-German war have conveyed an exaggerated idea of the value of cavalry in getting relevant information. The German cavalry rendered important services in that direction, this no one will contest ; but at that time it was apparently overlooked that what it was able to effect was mainly due to the negligence and utter want of enterprise on the part of the French. When in after years its action was calmly investigated and criticized by competent officers, it came to be recognized that in future it will possibly experience greater difficulties, as the enemy will naturally adopt the same system. The accuracy of the statement contained in the German Official Account, to the effect that the most weighty determinations of the commander-in-chief were always based on the clear and precise information which he received from his indefatigable cavalry, has been questioned. General Lewal* has endeavoured to prove that the German cavalry was seldom able to afford information on the most essential points. Many passages which occur in the German Official Account appear to show that, notwithstanding all the latitude accorded to the German cavalry, and the great enterprise shown by

* "Études de Guerre," par le General Lewal, vol. i. p. 95.

its officers, it often lost touch of the enemy and did not give the information which was most desired at a given moment. The army of the Crown Prince, as an instance, lost the touch of Marshal McMahon's army from the 6th to the 26th of August. In the second part of the campaign the German cavalry, after Bourges, could not furnish information of any particular consequence on the concentration of the French forces, because the Franc-tireurs prevented their penetrating to any distance.*

In the campaign of 1806 the French cavalry obtained greater successes than the German in 1870; it came up with the Prussian forces retiring in different directions, and compelled them to lay down their arms. These, the two most striking examples of the employment of cavalry in war in this century, have, however, been disappointing, as in neither case did the enemy's cavalry offer an adequate opposition.

The information the cavalry can obtain does not generally extend much beyond the surface of the enemy's army; the horsemen cannot penetrate beyond the opposing cavalry screen and see

* The "Revue de Cavalerie" for the month of April, 1895, contains an analysis of the exploration performed by the 5th German cavalry division on the 12th, 13th, and 14th of August, 1870, taken from the regimental records of six out of the nine regiments engaged. This analysis is worth studying, as it shows certain radical defects which were overshadowed at the time by the successful result of the general operations.

what movements are in actual course of preparation. The small detachments sent to observe can only exceptionally plunge into the centre of the enemy's forces, and find their way back with information of a most important nature.

As its principal occupation is to ascertain the whereabouts, movements, and dispositions of the hostile forces, the cavalry has not inappropriately been called the eyes of an army.

Some squadrons of each independent cavalry division are pushed forward to search for the enemy, scouring the country in every direction, feeling on every road, and ascending every eminence from which an extensive view can be obtained. The leading squads endeavour to discover the enemy's outposts, camps, or bivouacs, or its marching columns, which, once found, must be constantly kept in sight. To do this, the leading horsemen must conform with all the movements of the enemy, following him always when he retires, and falling back slowly on their supports when he presses them with superior numbers. Their object is not to fight, but to watch and report; consequently, though the cavalry patrols must ever be unrelaxing in their vigilance, their guiding rule is to abstain carefully from attacking or provoking a fight.

The most perplexing moment is when the adversary appears in considerable numbers. To eschew being cut off, they must conceal themselves, steal away quietly, and retire slowly on their

supports; always being ready to resume their observation when the ground in front of them is clear.

A certain number of bold horsemen properly handled and ever hanging on the enemy will yield fruitful results. The ever-constant presence of these small parties of cavalry, and the knowledge of being incessantly watched, will disconcert the enemy; it will produce a torturing feeling of uneasiness, which in the long run cannot but generate a demoralizing effect. Some scouts in sight will evidently lead to the supposition that they are followed by powerful supports, which may of itself induce the adversary to fall back. If we only consider how difficult in war it is to get any reliable intelligence of the actual state of things, we can form an idea of how easily a bold party of horsemen can impose on the enemy. If nothing else, their statement that they are the advanced guard of a considerable force will meet with a large amount of credence; possibly no one will dare to inquire how far the main body is behind them.

Some French officers, who took part in the last Franco-German war, have depicted in a very forcible way the everlasting anxiety caused by the presence of the enemy's cavalry. General Vinoy,* referring to the action of the German cavalry, says, "From that moment we became the object of

* "Campagne 1870-71," "Siège de Paris," "Operations de 13^e Corps."

continual and rapid inspection from the enemy's scouts. They kept galloping on our flanks, just out of range, seeking to see the head of our column and to calculate its force and report to their supports."

Colonel Bonie * gives a striking picture of the demoralizing effect which the appearance of the German horsemen produced after the retreat from the battle-field of Worth. "We received in the middle of the day of the 8th of August (at Sarrebourg) orders to saddle and mount, because the enemy's cavalry was in view. Some scouts were mistaken for the head of numerous columns; we then retired. From that moment until we reached Luneville their scouts watched us unceasingly. Linked to their army by horsemen, they gave an exact account of our position, of our halts, of our movements; and as they watched us from some little distance, incessantly appearing and disappearing, they spread uneasiness."

At Luneville, on the 10th of August, the French, when hoping to get a little rest, were suddenly ordered to march, for no other reason than because the enemy's cavalry was again in sight.

Further on, Colonel Bonie shows how quickly the Prussian staff found the lost track of Marshal McMahon's army. "But they quickly found us again by means of their cavalry, which never lost the touch, and marched on our flank, spread-

* "La Cavalerie Française, 1870."

ing out a curtain, behind which their army worked."

"At Chêne Populeux the enemy was thirty miles behind his cavalry. As we advanced we met groups of five or six horsemen, who retired slowly after examining our arrangements and informing those who followed them. If we wished to pursue, each fraction fell back on a support capable of resisting us and keeping us from penetrating the curtain. The service was so well performed by the Prussian cavalry,* that we marched, so to speak, within a net which enclosed us in its meshes."

The most remarkable thing in all this was that no cavalry officer on the French side became alive to the necessity for applying the lesson taught them by the Germans. For all that, we cannot believe that there were no officers in the French army who did not understand the correct employment of cavalry. In 1869—only a year before the war—one of their cavalry generals had published a fourth edition of De Brack's "*Avant-Postes de Cavalerie Légère*."† The writer of this very

* "The enemy concealed his movements so well behind the impenetrable screen of cavalry which he threw forward, that, in spite of the most persevering researches, it was never known where the main body of his force really was."—Napoleon III.

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“THE OBJECT OF LIGHT CAVALRY.

“Q. What is the object of light cavalry in a campaign?

“A. To shed light and protect the march of an army.

“Q. How can it attain that object?

“A. By preceding our columns, feeling on the flanks, surrounding and covering all with a vigilant and fearless curtain; following the enemy step by step, tormenting him, engendering uneasiness, discovering his projects, wearing out his forces in detail, and compelling him in short to waste in defence that offensive power from which he would otherwise have been able to derive the greatest advantages.”

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name, write, they do not do so to advertise themselves, they are not actuated by a vain desire to expose their learning. They are impelled by a public spirit to place the personal experience they have acquired, and the result of their many days of meditation and study, at the disposal of their brother officers, for the good of the country, and for the honour of the army of which they have for many years formed part. Impressed as they fully are with the importance of the lessons of the past, their main desire is to see a thorough practical system established, and to eliminate, as far as it is possible, every chance of a repetition of former negligence, errors, and failures. All praise is due to such men. They have done more than their simple duty. It remains for those who have the direction of the military education of an army to do theirs, and to see that these salutary teachings are not allowed to remain fruitless, but are turned to profitable account.

It is strange how soon the teachings of war come to be forgotten. Frederick the Second and Napoleon understood the correct principles on which cavalry should be employed in the field; nevertheless, with time, both the Prussian and French cavalry leaders became oblivious of the principles laid down by these experienced commanders. Referring to the cavalry manœuvres held near Berlin in 1821—only six years after the conclusion of the war with France—von Kaeler

points out how quickly the art of leading troops in the field is lost. How much more so must it be with the exploration, which cannot be fully rehearsed in mimic warfare.

It has been said that in the Jena campaign, outpost and reconnaissance duties were unknown to most of the Prussian officers. After 1866, they turned to account the fundamental lessons taught by Frederick and by Napoleon, which the French had quite forgotten; in 1870 they applied them with zeal and intelligence, and revived the *rôle* of cavalry in all that regards the exploration with singular success.

The cavalry should endeavour to penetrate as far as possible in the enemy's direction, without incurring serious risks. Small groups of three or four men each have a better chance of pushing unperceived across the enemy's outposts and between his columns than a larger body. They can more easily conceal their movements and get out of the enemy's way; they can be more daring, and, by skill combined with cunning, can make a rapid survey of the enemy's position and gather useful particulars. If threatened by superior numbers they can withdraw with facility, and, evading their pursuers, retire on their supports.

Boguslawski shows how the German cavalry carried out this practice in 1870. "If they found the way clear before them, they sent officers' patrols, with orders to push forward at any risk

until they came upon the foe ; . . . and if here and there a cavalry patrol, some days' march in advance of the division, was dispersed or cut off, one or two horsemen generally made their way back to give intelligence, which was what was wanted."

As a general rule, the exploring patrols should abstain from following the main thoroughfares, as these are more carefully watched. Their progress is less likely to be obstructed on the side roads and lanes. A small party of horsemen ably led can move by the most difficult paths ; and just because cavalry are not expected to avail themselves of these byways, they have a better prospect of not meeting a soul to hinder their passage. Prudence enjoins their not remaining too long in the places they visit. A discreet leader will seek his information and disappear before the population have become aware of the smallness of his party and of the distance it is from its supports.

The well-known fact that an exploring patrol comprises a minimum of men, will suggest to the adversary the possibility of a surprise ; consequently all due precaution must be observed to guard against ambushes. Where these may be expected, the troopers should follow each other at a distance of from 50 to 100 yards, the leader in the centre. Proceeding in this longitudinal formation, there is less risk of the whole party falling into ambush and being captured ; at least one may

effect his escape and convey information to the supports.

In exploring, the powers of the horses must be husbanded, for they will not only have to bear the weight of the rider for many consecutive hours, but they must be at any moment in a condition to launch out in a rapid gallop, when it is either required to keep up with the enemy or to slip away from him. Swift ness being one of the principal elements in exploring, we should not rest satisfied with selecting the best-mounted troopers, but should pay equal attention to their equipment. The soldier should march in the lightest possible order, for we cannot expect his horse to make long incursions at a very brisk pace, and bear heavy fatigues, if it is unnecessarily overloaded. The horse of a light cavalry man must not be looked upon as a beast of burden, but as a swift aid to locomotion, consequently it should be relieved of any articles which may retard its movements. For the time the troopers must be contented with what is absolutely indispensable. They must fare on what they can find—sometimes well, sometimes badly; being in very small numbers, their alimentation and that of their horses will seldom present any very serious difficulty.

All nations who make a considerable use of the horse carry a minimum of lumber. The most enterprising cavalries have lived on the local resources and have found sufficient means of subsistence.

The composition and strength of every exploring body must be proportionate to the task marked out for it. In war we have to discover what the adversary is in a position to do, and to find at the same time the best way for carrying our plans into execution. To this end, the front should be partitioned according to the number of large units, divisions and brigades available; a distinct zone being assigned to each, in which it should perform its operations.

Each cavalry division will thus be told off to explore a given tract of country. All alike will be preceded by detached squadrons, whose special mission will be, first, to advance until they have discovered the enemy; and, secondly, not to lose sight of him, shifting their ground as he moves from place to place, so as to be cognizant of his position at all moments. To obtain useful information it is not sufficient to catch an occasional glimpse of the enemy here and there; we must be constantly in touch with him. This action of never letting him get out of our sight, once he is found, is what we understand by the expression of keeping the contact.

To effect this, each foremost squadron must send a number of small patrols in the direction of the enemy. The most important of these patrols should be led by officers, who, owing to their superior attainments, can estimate without exaggeration the strength of the enemy's forces, and

grasp the full purpose of their movements. This is nothing more than following our practice in the Peninsula war, only that two or three men are associated with each officer, so as to have one or two to keep a good look out, to be available for holding the horses when any of the party alight to make observations, or to convey information to the rear. These patrols, in point of fact, become so many small reconnaissances, for their leader is the real explorer of the party, the others are only joined to him to facilitate his task. The reconnaissances effected in this guise are the soul of the service of exploration.

As all these patrols have not the same relative consequence, the capacity of the individual who is to lead each one should be proportionate to the importance of its object. Officers, being too few in number to take charge of all the exploring patrols, will have frequently to be replaced by the most intelligent non-commissioned officers.

The number of patrols required to explore a given tract of territory thoroughly must always depend on the nature of the country, on the state of the atmosphere, on the strength and enterprise of the enemy. In any case, patrols must be sent in diverging directions at the same time; for, to obtain a multitude of reports, it is indispensable to gain touch of the enemy in many points.

No itinerary can be given to an exploring patrol, but simply the direction to be taken.

Impracticable as it will often be to follow a main road, which the adversary will keep more under observation, a skilful leader will be able to proceed in the direction assigned to him by following a tortuous course, alternating from side to side as the nature of the country and the folds of the ground offer more opportunities for concealment.

The exploring patrols have to seek for the enemy, to examine the country, and to hinder the circulation ; performing thus the double service of informers and protectors. They summarily reconnoitre the country they travel over, and keep, as far as it lies in their power, the enemy's scouts and spies from crossing the screen. They must concern themselves, above all, about the enemy, and signal his presence, whether he be near or far away, in large or small numbers.

These widely disseminated groups, liable as they are to be overcome by a bold adversary, must be adequately supported by the contact squadrons they belong to. They must consequently look to their respective units for directions and assistance ; they must be relieved, reinforced, or fall back on that unit, which is the contact squadron of which they form part. As exploring duties will cause considerable fatigue to both men and horses, the contact squadrons should be relieved by others from time to time.

The contact squadrons will follow their exploring patrols at a reasonable distance ; behind

them will come the reserve or main body of the division. To keep the enemy from tearing asunder the curtain which the cavalry thus forms with the object of concealing the movements of the army, a close connection must be maintained between these several bodies; the nearer the enemy is approached the closer the supports and the reserves must be brought to the foremost groups.

The very nature of the exploration will prevent these squadrons taking any notice of the movements of the main body of their division. The movements of the enemy must be their only guide; they must attach themselves to him, and stick to him tenaciously from the moment the touch comes to be established. The divisional commander must, nevertheless, be kept informed of the direction they are following, whenever, to keep touch with the enemy, they have to divert from the direction originally assigned to them.

The cavalry has, first, to gain the contact; secondly, to keep it. The maintenance of the contact consists in never losing sight of the adversary, in watching him whether he be stationary or on the march, in following all his movements, whether he be near or distant. As he must be subjected to an incessant scrutiny, the exploration must have all the elements of persistence, and should never be suspended or interrupted. There must be no intermission, and, if from any unforeseen occurrence the touch is lost, we must employ all our

energies to regain it. This is a matter of such vital importance that every effort must be made to defeat any measures which a wily opponent may adopt to make us lose it. To surround the enemy with vigilant scouts, that will watch him without interruption, should be the first occupation of any officer sent to the front for the purpose of exploring; this he must do without waiting to receive orders.

Exploration is a laborious service, and it extends from the first day of a campaign to its very end. It must be continuous, without relaxation by day and by night, for if it were allowed to cease with daylight, during the many hours of darkness the enemy might disappear or draw near without our having the least conception of it. In 1870, before the battle of Vionville, we have a good illustration of the restless vigilance by which a body of cavalry should be animated. Mr. Archibald Forbes writes: "Probing about the front and flanks of the advance, the horsemen, under cover of night, had discovered where Bazaine's left flank lay in fancied security about the terrain villages, and the information went to the rear, we may depend, with all the speed that zealous men and stout horses could compass."* At night the exploring patrols should detach scouts to creep up on foot close to the enemy, to spy out, to listen,

* "My Experiences of the War between France and Germany," by A. Forbes.

and discover any alterations in his position or any preparations for movement.

A good arrangement for securing a continuity in the exploration is not to make the return of the patrols imperative. Frequent advancing and retiring only fatigues the men and horses; on this account, and not to have to do over again the same work on the following day, a certain amount of discretion should be allowed to the leaders of exploring patrols to remain in observation during the night in place of retracing their steps. This particularly recommends itself when the nature of the enemy's movements has unavoidably led a patrol to a considerable distance in advance of its squadron, and there is a fair prospect that by continuing where it is some important information may be gained.

In such an important service as exploration, the manner of acting must be clearly marked out, and not left entirely to individual option, for nothing is more disastrous in war than a want of method. As officers can effect a certain purpose by following different courses, it is not unreasonable to place a certain measure of confidence in their skill, for confidence well bestowed is seed sown on fruitful ground. Without quite stifling all initiative, it is nevertheless prudent to lay down all that is susceptible of being regulated. It will repay well to establish a system of procedure clear, simple, and based on past experience, which will prevent errors, omissions, and negligence.

A certain amount of freedom must necessarily be conceded to this arm, as without it all enterprise would be impossible; this nevertheless must be done with judgment, not to suffer the cavalry to get out of hand.

To protect the flanks, and also to prevent small detachments getting round and molesting the troops on the march, the cavalry screen must occupy a larger front than the army itself. This must not be carried too far, or the screen will be so weakened that it will be easy for the enemy to break through. As by assuming a bold countenance a small body of troops can hold a greater one in check, a cavalry commander should strive to form a correct estimate of the strength of the enemy opposed to him, so as not to employ at any point a number of troops in excess of what is actually required. Real perfection in everything lies in obtaining important results by the employment of a just measure of means.

By failing to reconnoitre with his cavalry round the British flank on the forenoon of the day of Quatre Bras, Ney was led to believe that the allies were stronger than they were, and delayed his attack.

The great tenacity shown by Chanzy at Beaugency made Gambetta urge on Bourbaki the necessity for making a counter-attack on the army of Prince Frederick Charles. On the 9th of December an order was sent to the general to march on Blois, but he not only refused to do so,

but demanded instead to be permitted to retire his troops as far as Saint-Amand-Montrond. At that period there were only south of Orleans, as far as Gien and Vierzon, some small detachments of Prince Frederick Charles's army, consisting principally of cavalry, for the prince had marched the bulk of his forces to the west, where a decisive action against Chanzy had become urgent. The bold countenance showed by these weak detachments of cavalry imposed on General Bourbaki, and kept three army corps inactive at a pressing moment.

A point to be studiously guarded against is a too large dissemination of the cavalry, which might render its concentration very difficult or tardy if attacked by the enemy's cavalry, or if required suddenly for any offensive movement. In the war of 1870-71 the German cavalry displayed great enterprise; the French did not. When both sides will, however, resort to the same tactics—as will surely be the case in the next great war—there will be more need for having to concentrate rapidly to check an irruption of the enemy's horsemen. This will lead to the cavalry divisions being kept more together, and scouting on a smaller front.*

To maintain touch with the enemy must

* In 1870-71 a German cavalry division spread out as far as 21 miles. The best authorities are now of opinion that from $9\frac{1}{3}$ to $12\frac{1}{2}$ miles should be the maximum front for exploration per division, and that the distance between the independent divisions and the head of the following columns should not be more than from $15\frac{2}{3}$ to 19 miles.

naturally lead to the dispersion of a given body, for the exploration, as we have said, must cover a certain extent of ground when our object is to gather information on many points. This dispersion assumes that the enemy is equally disseminated; however, we have never a certitude on which to base such a supposition, and, if the adversary has massed his forces and moves rapidly to attack, a scattered division may not have sufficient time for concentrating. The enemy's cavalry can only be overcome by a rapid concentration. When within striking distance of the foe, the commander of a cavalry division must, consequently, be prepared to concentrate the whole of his forces as quickly as possible, following the leading principle of war, which enjoins to operate with all our forces united.

The object of the cavalry divisions is to see what the enemy is doing, and to prevent his seeing what we are about. For the first the cavalry must necessarily extend on a wide front; for the second it must concentrate and fight. The exploration, therefore, should not be overdone to the detriment of a rapid concentration.

As the more a body of cavalry is numerous and united the greater is the prospect of its gaining an advantage on the enemy, it will be prudent not to employ too many detachments. Each division should keep as much as possible together, sending ahead one or more squadrons to undertake the exploration, and echelonning in the rear

only what is strictly necessary to pass the information as it comes to hand.

A division would thus follow the principal thoroughfare leading towards the enemy in the region assigned to it for exploration, all the lateral roads being reconnoitred by patrols commanded by an officer or a non-commissioned officer. What is of great moment is for all portions of a cavalry division, whether at rest or on the march, to be well connected together, and for the information of every particular which has been observed or heard regarding the enemy to be speedily brought to the notice of any detached parties. Intelligent scouts will give timely notice of the enemy's movements, and on their information it will be generally possible to gauge his intentions with approaching accuracy. Should he succeed in breaking through the curtain, the direction of his march will be known betimes, and dispositions can be taken to attack him in flank or in rear, and cut off his retreat.

Some writers have given a normal formation for the march of a cavalry division. As the nature of the country, the number and direction of the roads, and the attitude of the enemy, must always be taken into account, no hard and fast rules can be laid down. The movements of a cavalry division must be as elastic as possible, and the talent of its leader lies in making the formation accord with the existing circumstances.

Capturing some prisoners is a matter of considerable consequence, on account of the prospect there is of being able to draw more or less relevant news from their statements. The uniforms of the prisoners and of the dead will reveal in an indirect manner the strength of the enemy. From the best information it can collect, the intelligence staff will be in a position to draw up an order of battle of the adversary's army; the uniforms of certain regiments will afterwards indicate in a very positive manner what corps are occupying a certain region of the country, and when it is known that these form part of certain brigades, divisions, and army corps, the inference can be drawn that those units are somewhere in the neighbourhood. As this comes to be ascertained all along the enemy's front, there will be little difficulty in fixing with tolerable accuracy the location of the various army corps.

The following illustration of an instance which occurred in 1815 is given by Comte D'Herisson in "*Le Cabinet Noir*." "Quite early on the day of the battle of Waterloo an officer was despatched by General Grouchy, son of the marshal, to requisition food in the neighbouring villages. This officer returned and informed him that he had fallen in with some Prussians, who had hindered him. Mons. de Grouchy concluded that they must have belonged to Blücher's troops marching to join Wellington, and the matter appeared to him

so important that he set spurs to his horse to get at the emperor. At about ten o'clock he was with Soult, to whom he communicated the circumstances.

"Soult advised him to go in person and inform the emperor. The latter having heard him, said, 'Who is the stupid officer who could make a similar report? The Prussians are very far from here.' Mons. de Grouchy returned to his brigade, and after repeating to the officer the emperor's remarks, told him that it was necessary to lay hold of some prisoners. The officer set out with a few volunteers, and Mons. de Grouchy marched to support him. Soon two foot soldiers and a hussar were captured, and Mons. de Grouchy hastened to convey them to the chief of the staff.

"The emperor had them interrogated, and it was consequent on their statement that they formed part of Guttien's and Schmidt's brigades, that he was led to order Mouton to march so as to cover his right. It was then nearly two o'clock."

A good deal has been said of the boldness of the German horsemen in the last Franco-German war, nevertheless the following passage taken from Baron Marbot's memoirs* shows what services our officers rendered to the Duke of Wellington in the Peninsula war. "During our stay at Sobral, I saw another artifice employed by the English, and one of sufficient importance to be worth noting.

* Baron Marbot's "Memoirs," chap. xv. p. 130.

It is often said that thoroughbred horses are of no use in war, because their price is so high and they require so much care that it would be almost impossible to provide a squadron, much more a regiment, with them. Nor indeed do the English use them on campaign; but they have a habit of sending single officers, mounted on fast thoroughbreds, to watch the movements of a hostile army. These officers get within the enemy's cantonments, cross his line of march, keep for days on the flanks of his columns, always just out of range, till they can form a clear idea of his numbers, and the direction of his march. After our entry into Portugal we frequently saw observers of this kind flitting round us. It was vain to give chase to them, even with the best mounted horsemen. The moment the English officer saw any such approach, he would set spurs to his steed, and nimbly clearing ditches, hedges, even brooks, he would make off at such speed that our men soon lost sight of him, and perhaps saw him soon after a league further on, note-book in hand, at the top of some hillock, continuing his observations. This practice, which I never saw any one employ like the English, and which I tried to imitate during the Russian campaign, might perhaps have saved Napoleon at Waterloo by affording him a warning of the arrival of the Prussians. Anyhow, these English 'runners,' who were the despair of the French general from the moment we left Spain, increased in boldness

and cunning as soon as we were in front of Sobral. One could see them come out of the lines and race with the speed of stags through the vines and over the rocks to inspect the position occupied by our troops." *

In all this the habit of riding across country and taking part in races and steeple-chases—which should always be encouraged—gives our officers a considerable advantage. Naturally the greater range and accuracy of modern fire-arms will render such practice in future more dangerous ; for all that, the great improvement made in the power and portability of field-glasses will still enable an officer to make his observations, though precluded from approaching as close to the enemy as heretofore.

After reading of the enterprise of our officers in the Peninsula war, as commended by one of their adversaries, one may recall with just indignation how, in the last contest which occurred in England, Feversham, with 700 cavalry at his command, failed to ascertain what the rebels were about at Bridgewater, only three miles from his camp. There was no excuse whatsoever for his utter want of energy in a struggle with raw levies, led by a

* In the Peninsula, British officers could do this unsupported, as they were campaigning in a friendly country. To explore thus, or with small patrols, will bear no fruit if the enemy has a large quantity of light cavalry, and the population is bold. In the second part of the last Franco-German war, the German exploring parties could not display the same audacity as they had exhibited in the earlier days of the campaign.

wavering chief, in which it is related that there were traitors in both camps ready to supply the opposite side with information.

It is a fact which has often been adduced, that in 1859 and in 1866, owing to inadequate reconnoitring, the French and the Prussian staffs entertained no suspicion of the near and concentrated presence of the Austrian forces.

The leader of a cavalry detachment should never allow anything to escape his notice; his inquisitiveness should never cease. When the preparations for an attack on Orleans, in November, 1870, were in a very forward stage, Mons. Thiers returned to Tours from the Prussian headquarters. It was feared that the Prussian escort, seeing the position and the activity of the French outposts, would warn their chiefs that some important movement was in contemplation. Fortunately for the French, the escort returned to Orleans without entertaining any suspicion of what was intended.

In all that relates to exploration, we must never lose sight of the fact that our adversary will employ the same means as we do. The information which we shall strive to gain on all that relates to his strength, his movements, his condition is just what he will seek in return by using analogous measures. Our task is therefore double, to gain intelligence of his power and intentions, and to prevent him from knowing ours.

Whether the army is halting or moving, the

cavalry screen has the same duties to perform ; in both cases it must display the same vigilance in covering the main body, in watching the action of the enemy in its front, and collecting information. Its heaviest work will occur in the opening part of the campaign, for, naturally, as the two contending armies close on each other, even the cavalry which has remained victorious in the cavalry combat, will not be sufficient to act by itself, and will have to pause and wait for the co-operation of the other arms. At that period it can be directed on the enemy's flanks and rear, to threaten his communications, to capture his convoys, to destroy his magazines, and to damage his railway lines of supply. These later operations, however, come more properly under the heading of cavalry raids.

A bold cavalry dash, designed to effect some special object, may conduce to important results. On the 20th of July, 1870, as an example, a detachment of 30 Rhineland Uhlans, under Lieutenant Voight, destroyed a viaduct of considerable height on the railway line which connects Metz with Saarguemines, Bitche, Hagenau, and Strasburg. These irruptions, nevertheless, cannot always be carried out with impunity. On the 12th of August of the same year a feeble party of the 10th Dragoons, consisting of one officer, Lieutenant v. Toll, two non-commissioned officers, and 29 rank and file, were sent to Pont-à-Mousson with the object of damaging the railway and telegraph. At

Pont-à-Mousson this party fell in with Captain de Thauvenay of the staff of the Xth Corps, who, escorted by two platoons of the 17th Hussars, was effecting a reconnaissance.

Having taken what appeared to him sufficient measures of security, by posting squads and vedettes to give the alarm in case the enemy should appear, Lieutenant v. Toll ordered his men to dismount and set to work. The hussars remained in the town.

The telegraph-posts were demolished, and with much labour one of the rails had been removed, when the alarm was raised, for bodies of French cavalry were seen tearing down the line at a swift gallop. The enemy—belonging to the 1st and 3rd Regiments of Chasseurs d'Afrique—also emerged from the town and attacked the dragoons in rear before they had time to mount. With difficulty Lieutenant v. Toll, the trumpeter, and thirteen dragoons managed to effect their retreat and re-joined the regiment at Silly-en-Saulnois; the rest were either killed, drowned, or captured. Of the party under Captain de Thauvenay, he escaped, but almost all the hussars, officers, non-commissioned officers, and men, were captured.

As the artillery comes into action, the cavalry, having performed its preliminary rôle, must clear the front. It will then be located on the flanks to aid the other arms in the battle, to seize what opportunities may offer themselves, to gain timely information of the advance of any of the enemy's

army corps to participate in the contest, to turn a defeat into a rout,* and to take up the touch, so as to ascertain the real direction of the enemy's retreat. The last point is of the greatest consequence, for experience shows that time lost is never regained. After the battle of Austerlitz, the French army pursued the Austro-Russian forces on the wrong road; because Murat's cavalry had mistaken the enemy's line of retreat. At break of day on the 3rd of December, Murat was sent with 72 squadrons in pursuit, but he followed the Olmutz road, and neglected to scour the others. Had the French cavalry after the battle of Ligny kept touch with the defeated Prussians, Napoleon would not have been kept in ignorance of the real direction their columns had taken. It was almost night on the 16th of June when the Prussians began to retire from the battle-field, but Grouchy only started in pursuit on the following afternoon.

The attention of the cavalry must not be allowed to be distracted by passing events, and the battle going on is no reason for suspending the exploration. Had Du Barrail's reserve cavalry explored during the battle of Gravelotte, it would have given timely notice of the approach of a German corps by the Conflans-Moineville road, and revealed that the

* Jomini observes, "An army deficient in cavalry rarely obtains a great victory." This is easily explained, for such an army lacks the means for turning a defeat into a rout, through a vigorous and unrelenting pursuit. A victory secures comparatively very small results unless it can be turned into a crushing defeat.

real object of the Germans was to throw back the French right into Metz. The scrutiny of the enemy must not cease for a moment, for if it is once interrupted it is difficult to resume. In the last incidents of the fight, above all, it must be carried out with the greatest activity, so as to establish the right direction of the adversary's retreat.

To regain the contact and to ascertain the true line of retreat after a battle is a difficult matter, for the adversary employs his rear-guard to stay the progress of the victors and to conceal the direction followed by his forces, which he often changes after having got some way from the battle-field. At Austerlitz, at the Moskowa, at Ligny, at Koeniggraetz, at Reichshoffen, at Spicheren, at Borny, and at Orleans, in each case the cavalry lost the contact, as the exploration had been suspended during the battle. After the battle of Koeniggraetz the contact was not entirely re-established until the sixth day. The exhaustion of the troops after a long and hard-contested engagement apparently causes a certain delay before an organized pursuit can commence.

The cavalry will be posted on the wings, which it must protect during the battle. This arm must give timely notice of any turning movements, it must obtain useful information, for what is above all necessary at this time is to know what occurs in the enemy's rear. All this a cavalry leader must do on his own initiative, without waiting for orders. A

certain number of intelligent scouts should be directed to occupy every point of vantage which overlooks the enemy's position, to prowl about his flanks, approaching as close as they can and examining all his actions.

As the enemy's resistance shows signs of giving way, orders must be given for the cavalry to get ready to follow in pursuit. Any hesitation or delay at this moment may entail the loss of the best fruits of a victory.

To bear good results the pursuit must be guided by an intelligent exploration. The flanks of a retreat are very favourable for observation, and exploring patrols should be pushed in these directions. The least fatigued of the cavalry should follow the defeated forces and ascertain the direction which they have taken, sending frequent reports to the rear of all traces of the enemy. The main body can follow on the information thus acquired. A direct pursuit will never offer such good results as one executed on the flanks. In the former there is always a prospect of its being checked by the enemy's rear-guard, whereas by pursuing on the flanks the cavalry may outreach the enemy at certain defiles and retard his retreat. Troops retiring from a lost battle-field march fast, and can only be outstripped by cavalry sent to a considerable distance.

Murat, in 1806, after the battles of Jena and Auerstadt, gave a fine illustration of a cavalry

pursuit. The movements of his squadrons were vigorous and daring even to temerity.

In covering a retreat, small detached parties of cavalry should ascertain the pursuer's strength and intentions. This reconnoitring during a retreat is often neglected, and enables the pursuing cavalry to reap signal advantages from its enterprise.

Much has been written during the past few years on the future *rôle* of cavalry, on the marching formation best adapted for a cavalry division, on the extent of front which it can efficiently explore, on the most rational way for supporting the most forward exploring patrols, on the necessity for combining the exploration with a rapid concentration to make head against the enemy. On many of these points the writers are not of accord, their opinions are conflicting, and a good deal appears not to have been conclusively determined. It is beyond our powers to go deeply into these matters, which have been treated already at great length by competent and talented officers. The limit of this work allows us to do no more than to indicate the elementary principles of cavalry exploration; for a more searching inquiry into the subject, the military student should consult such works as treat on the strategic service of cavalry and on cavalry tactics as a speciality.

CHAPTER V.

TRAINING OF CAVALRY IN EXPLORING DUTIES.

CAVALRY wanting in rapidity, boldness, and dash is not of much good in war. The motto, *celer et audax*, does not, however, comprise all that it should be, for quickness and boldness are not sufficient, and the worth of this arm will always be proportionate to the pains which have been taken in everything which forms part of its training. The most daring bravery, the greatest enterprise displayed by the leader of a cavalry detachment, in place of being useful, may be hurtful, when from a want of knowledge on his part he is not able to form a right appreciation of the actual circumstances, or can assign the exact interpretation to what comes under his observation.

The training of cavalry outside the parade ground should be eminently practical. In time of peace it is too much confined to smartness in appearance, precision in field movements and other drills; that arm is not sufficiently habituated to such exercises as are analogous to what it would

have to perform in a campaign. Men must be trained in peace for what they will have to do in war; but how is it possible that the latter exercises can become a thoroughly practical training, if they are made secondary in importance to the former and are not constantly repeated.

Reconnoitring and exploring work cannot be practised within the narrow limits of a drill field; for this we need a large extent of country, of a varied nature, and intersected by plenty of roads; for we must bear in mind that in war a single regiment will have to spread out and explore on a front extending for several miles. We will not say that the utter dissimilarity between peace and war, that the scattered state of our garrisons, that the want of suitable ground in our enclosed country—coupled with the unwillingness of our farmers to lend us the use of their fields—do not militate against the frequent performance of this valuable training; nevertheless, we think that this may also often be traced to a forgetfulness of the most essential work which the cavalry will be called upon to execute in war.

An army is not kept up for show, but for use; consequently every hour taken from instructing the troops in such duties as they will have to perform in the field is a loss of valuable time to the country. That excessive grooming of our horses, which renders them too delicate to bear exposure and hardships on service, that unceasing furbishing and

cleaning, which disgusts the soldier, might with good reason be replaced by more profitable training. One should always judge by results, and we have seen cavalry, which in appearance could not compare with ours, acquit itself in the field in a manner which has elicited the admiration of our smartest cavalry commanders.

In his estimate of the light cavalries of Europe, De Brack makes the following observations on our cavalry: "If the British cavalry understood war, it might possibly be, in the day of battle, the most terrible in Europe; its well-established luxury in horses, in equipment, harmonizes with the courage and fine presence of its soldiers; when it comes in sight you may be sure that its movements are well combined, that its attack will be powerful and its retreat regular. It seldom parts company with its infantry, which insures its rest in the bivouacs. It looks after the position and gauges the dispositions of the enemy more by means of well-paid spies than through its own reconnaissances."

Cavalry requires a very able body of officers, and not empty-headed dandies; it must have men who combine with physical courage, which masters dangers, a full sense of their responsibilities. Its officers need to be more highly educated than those of the other arms, not only because they have more opportunities of acting independently, but because their incidents are more fleeting, and one of the principal duties they will have to perform may have

a great consequence on the result of a campaign. A cavalry officer should reflect that it is not sufficient for him to look after the condition of his men and of his horses, and to be prompt, vigilant, and fearless, for the exact measure of his efficiency on service will always be proportionate to the knowledge he has acquired of the higher branches of his profession. This knowledge should comprise a very thorough acquaintance with the duty of covering an army in the field, which is without question the most important work which the cavalry will have to undertake in a campaign.

De Brack very justly observes: "No condition demands so many natural dispositions, an inborn genius for war, so much as that of an officer of light troops.* The qualities which make the superior man—intelligence, will, and force—must be found united in him. Constantly having to depend on himself, exposed to frequent encounters, answerable not only for the band which he leads, but also for the troops which he protects and enlightens, the

* Through pure extravagance our cavalry is closed to many officers who are by nature eminently adapted for that arm. Out of a number of young gentlemen who pass yearly into the army, the cavalry take many who have no better qualification than the large amount of their private income. Not seldom, to get the required number, commissions are bestowed on youths who have not scored sufficient marks in a competitive (?) examination. Any one who will take the trouble to analyze the expenses of our cavalry officers can only come to one conclusion, which is that the largest portion of their income goes to meet what we may call non-compulsory expenses.

employment of his moral and physical faculties are always in demand."

• The art of war, with its principles and problems, with all its numerous and intricate details, must be learnt just the same as any other profession. We might say even with greater diligence, as the occasions for putting the lessons to a practical test are, fortunately, rare. It is impossible, therefore, to combat too strongly the idea that a minimum of work and a maximum of expensive amusement constitute the proper thing in an officer's life. In every career alike it needs industry and time to acquire glory, or even to make one's self a name.

It requires a very high sense of duty to make young officers, full of life and with ample means for satisfying their natural inclinations for enjoyment and pastime, chain themselves to their desk to ponder for hours on works treating on war. Far be it from us to wish to see too many bookworms in our ranks, for there never was a truer maxim than "all work and no play makes Jack a dull boy." For war we do not want dull boys or mere theorists, we need men full of health, strength, and energy. What we, nevertheless, desire to impress on all officers is, that personal strength and courage alone are not sufficient to secure distinction in the field; and that bravery, to be of any avail, must be combined with a fair knowledge of war. In a well-regulated life there is time for everything, and an officer, who is so inclined, will always find in the

twenty-four hours time for study and leisure for recreation.

A cavalry officer would do well to prepare himself, above all, for those duties which call for the exercise of the eye, ear, and mind ; to accustom himself to reflect on what must be of the greatest moment for the commander-in-chief to know, and to learn how to interpret correctly the several indications which the enemy may afford. Let us bear in mind that a single item of relevant information, given in the nick of time, may have such important consequence on the result of certain operations, as to make the reputation of the officer who supplies it. It may otherwise be the means of procuring him further opportunities.

Some knowledge of this nature may be acquired by practising the war game, some may be picked up in peace manoeuvres, other can only be gathered by reading diligently and impressing on the mind the details of past campaigns.

The command of a reconnoitring patrol is the most important duty which will fall to a cavalry subaltern in war, and will offer him opportunities for bringing himself to the notice of his superiors. This duty can, however, only be performed efficiently by an officer who has qualified himself for it in time of peace.* To be a bold rider across country,

* Some few years ago General de Gallifet, referring to his own army, stated that there were very few officers who united in themselves all the necessary conditions for a good leader of an exploring patrol.

though a very necessary qualification, is not all; to this must be added skill and artifice, so as to delude observation and to know whether to brave the enemy or to retire before him, and, in the latter case, how to act so as to lead the adversary into error. It will need more than ordinary courage for an officer, backed by a handful of troopers, to plunge in the midst of a country overrun by the enemy and face the unknown. Many of us know how the dread pause in waiting for hostilities to commence, when confronting a hostile army, tries the courage of most men; for, however prepared we may be to brave a danger which we can see, we are disturbed by a danger which threatens us, but which we cannot clearly discern.

War is such a thorough oversetting of the normal state of things, that whatever we may do, it is impossible to devise any system in peace which will be even a faint reproduction of a state of war. The absence of the most embarrassing conditions which are found in the field, makes the rehearsal of the work to be performed in war fall ever so far short of the real thing, that the instruction imparted in the drill season and in the yearly manoeuvres cannot but naturally be very incomplete. The dearly purchased experience of service in the field alone, is rightly admitted to be the best teacher of war; this experience, however—not only with regard to the cavalry, but also to the other arms—

is not always at our command, and in our days campaigns are too rapid to allow sufficient time for gaining it. Study is not a thorough substitute for it, but it will go far towards instilling in the minds of the officers those maxims which will have to guide their actions in war.

Our usual wars* afford very little real instruction for our cavalry. The enemy's training is of a rude and primitive order, he is not led by highly educated, enterprising, and ambitious officers; and, whilst the number of horsemen we employ is small in proportion to the other arms, the adversary often takes the field without any. From all these causes it follows that our cavalry officers must gather their lessons from an intelligent study of the history of the great wars which have occurred in the past.

Before taking the field they should have received a far-reaching theoretical and practical training. Without it it will be impossible to expect them to feel properly for the enemy, to explore in accordance with the ideas of the general commanding, and to

* Our ordinary contests are an unsatisfactory experience, for they are carried out against enemies who, brave as they may be, lack a sound military organization, efficient arms, and dexterous leaders. The science being all on one side, they are not a fair trial of skill between two accomplished captains. Were we simply to place our trust on the ease with which we overcome our usual opponents, we would be laying ourselves open to some very cruel experiences, were we at any time to meet a foe which in point of organization, training, and leading is equal if not better than ourselves.

render a clear and true account of what comes under their observation.

• A cavalry officer must see all he can and get to know all there is to be known; his perception must be clear and his judgment sound. It is not sufficient for an officer to see, but he must see well,* he must have what is called a military *coup d'œil* to estimate circumstances at their just value. Without it he might furnish his chief with erroneous intelligence. The accuracy of the information he gives is a most important point, for it is on this that the commander-in-chief arranges his plans and moves.

When both contending armies have good enterprising cavalry officers, who are thoroughly masters of the *rôle* which is assigned to their arm, it will be by no means an easy matter to secure relevant information. To draw correct conclusions it is essential to ascertain where the bulk of the opposing forces are, what is their number, and what they are in a condition to do. This is just what the adversary will endeavour to keep from our knowledge through his cavalry screen, through his outposts, and through other precautionary measures.

* Not only should a light and powerful binocular, which will give to the organs of vision a greater range and a more distinct field, form part of every officer's equipment, but it should be supplied in a given proportion to all parties sent out to observe the enemy. Aitchison's patent pocket binocular, which closes into a small space and is very light, only weighing 5 oz., appears very well adapted for service in the field.

The necessity already noticed for having officers who are acquainted with the language spoken in the theatre of operations applies more to the cavalry than to the other arms. Without a knowledge of the vernacular, it is obvious that much of the information which it is possible to gather from the inhabitants, prisoners, or deserters, will be lost.

Cavalry officers and non-commissioned officers should also be very expert in reading a map. The advantages which this knowledge will confer when moving through a strange country cannot be overrated. Without good maps it will be nigh impossible to cover an army with anything like efficiency.

When troops take the field every endeavour will be made to furnish them with the best maps procurable. Of late years the importance assigned to military topography has been somewhat overdone. What is of greater moment than to produce an intelligent sketch is, that the officers and non-commissioned officers shall be expert in reading a map, shall be able to find their way about a country by its aid, and shall know how to correct it and bring old information up to date.

To keep touch with the enemy and to apprise the general commanding of his doings, is only a part of the officers' work; in the execution of this duty they will become acquainted with the characteristics and state of the country they have explored, which should always be incorporated in

their reports. However accurate the maps in possession may be, a country may at any time be affected by some special circumstances. The information which they give is the normal, but any disturbance of the normal may render certain military operations difficult or even impracticable. Heavy rains may swell torrents and render fordable rivers impassable, may flood a large tract of land or make the roads heavy and unfit for guns and transport wagons. Bridges may have been destroyed, villages may have been burnt, etc. It is always of the greatest importance for a commander to know the actual conditions of the country at the moment, and these can only be ascertained by personal observation. The cavalry being pushed far in advance of the main body, becomes the best medium for procuring precise information of this nature.

All officers who are sent out to reconnoitre should note on their reports the nature of the roads and of the country, stating if the roads are practicable for artillery and transport. The condition of the soil, if dry or wet, hard or soft, may have a certain influence on the march of the columns, for, when the ground is favourable, troops may move across country over the fields independent of roads. The actual state of the latter, moreover, requires to be known, so as to regulate the length of the marches in such a manner as to spare the troops all unnecessary fatigue. Maps are often

destitute of certain particulars which may be useful to a commander; many by-paths and tracks are left out, the nature of the fords is not indicated, all recent constructions, new plantations, and improvements have not yet been inserted, and information on these minor details may often be of the greatest value.

Amongst the principal requisites for a cavalry officer we may enumerate a good eyesight, a clear appreciation of ground, familiarity with the enemy's language, and an intimate knowledge of the marching formations and general composition of the different fighting units of an army. Courage, skill, and presence of mind are the three great qualities which form the man of action. To baffle all manner of dangers, to make up in audacity for the want of numbers, the officer must have experience of war, natural genius, and mental powers to arrive at rapid decisions and execute them with skill and vigour. In the absence of actual war experience, we must strive to develop his resolution, activity, and sagacity by a sound practical training. Officers who are exercised in exploring duties in the yearly manœuvres will be found to take a keen interest in this work.

Just as it is indispensable for the officer to possess a very high standard of knowledge, so does the training of the trooper call for considerable care. An efficient exploration can only be undertaken by troops who have been made to understand

its principles, and who have been frequently exercised with that object. It would be certainly unreasonable to expect the soldier to learn this work in the field, for in a very few days he will come into contact with the enemy. In ordinary field movements the trooper performs mechanical work, and has to comply with the commands of his troop or squadron leaders; in the field he has often to rely on his individual intelligence, and has no one to guide him. The development of his mind can only be the result of constant practice, and we certainly cannot look for it when the soldier has for years been broken to simple passive obedience.

The troop officers must themselves train their men, for it is of great consequence for them to know the individual character of each soldier. They must endeavour to make themselves competent teachers, a thing which does not come easy to every one alike. All through his training the trooper must be impressed with the advantages which his sagacity and vigilance will confer on his army. The very fact that the non-commissioned officers will often have to replace the officers is a strong reason for taking extra pains in training them in everything which regards the acquisition of information, so as to form them into efficient leaders of exploring patrols.

The men should be frequently exercised in exploring. In their marches, in field days, in the annual manœuvres, their officers should take every

opportunity to make the soldiers familiar with the country. They should be instructed how to find their way by the assistance of a map, their direction by the height of the sun by day, and by the polar star by night. They should be sent in different quarters to ascertain the names of the various villages and localities, to learn the direction and condition of the different roads, to gather particulars about rivers and other water-courses, on the situation of bridges, on the nature of the fords, on the extent of woods, morasses and enclosed properties, on the location of defiles. They should be taught how to render a faithful account of all that they have been directed to ascertain, and in what shape they should present the information they have gathered. This instruction should comprise both day and night work.

It is not simply sufficient for the men to know the kind of information that they will have to go in quest of, they must be made fully alive to the fact that to observe well it is indispensable to eschew every possibility of being detected. They must consequently be impressed with the necessity for concealing their movements, for taking every advantage of existing cover, for ascending every eminence from which it is possible to obtain an extended view of the country in front. They should know how in doing the latter they should alight before reaching the brow of a hill, for a mounted man forms a conspicuous object on the

sky-line, and can be seen from a great distance. They must be taught to pay attention to all indications, footprints, fires, smoke, dust, the glitter of arms, the rumbling noise of vehicles, the sounds of instruments, etc., and how any of these symptoms must be at once communicated to their leader.

It does not appear to us that sufficient attention has been paid to the necessity for teaching cavalry to dismount and conduct their exploration on foot. An obstacle which his horse cannot possibly overcome should never put a period to the fulfilment of an explorer's duty; the trooper should know that in such a case he should dismount, advance on foot, seek some favourable point of view, make his observations, then regain his horse and rejoin his party. The more, in short, the ordinary conditions of the soldier differ from the circumstances of war, the more it becomes necessary to educate him diligently on these and similar points.

To render the instruction more thorough, and to teach the soldier how to overcome the difficulties which he will have to contend against on active service, one squadron or one regiment can be made to work against another. It will enhance the value of this practice if each lesson is repeated, after the errors committed have been explained to the troops. If the reconnoitring and scouting practice can be carried out for several days in succession, there will be a greater resemblance to the actual conditions of war.

Before being exercised in the open, the soldier should know the why and wherefore of everything he will have to do, for there is seldom sufficient time for entering into lengthy explanations on the exercising ground. Theoretical instruction and catechising should always form the prelude of all out-of-door training, and this can be substituted for field drills when the weather is inclement.

As all ranks will have in their turn to take part in the exploration,* great pains should be taken in teaching them what they will have principally to look for, and the manner in which they should communicate what comes to their notice. The habit of practising cavalry in this duty in peace will bear fruit in war, for, without a considerable training of this kind, both officers and men will to a certainty experience many difficulties at the most critical period of a campaign, viz. at its commencement.

When this is properly attended to, the men will be made familiar with all those indications which portend the immediate vicinity of the enemy, with the proper manner of acting once they have sighted him, and with the right kind of information

* Some writers are in favour of having in each squadron some men especially trained for scouting work; we think that all troopers should be trained in it alike. It will then rest with the officers to select at any time the most intelligent men to employ on this duty.

which it is necessary to pass instantly to the rear. It will then be unnecessary to point out every day to each individual the objects on which he should concentrate his attention. His training should have taught him all that he will be expected to report on general grounds; with regard to any special points on which the general commanding may desire to be made acquainted, instructions can only be given at the time. The officers will have to direct the men's attention to these particulars, and, if they are of weighty consequence, it will induce them to detail the most intelligent and sharp men out of their troop.

In watching the enemy in any one point it is not advisable to employ too many men; two or three intelligent and well-mounted troopers will be sufficient to see and pass all relevant particulars to the nearest detachment. A larger party would draw attention without acquiring any more information. The men and horses must be spared all unnecessary fatigue; consequently, when a small post can keep an eye over a large tract of country, it would be pure waste to employ several parties.

As a general rule there is always a great inclination to employ too many men. Cavalry cannot be wasted, and the right principle is to use not more of it than is actually required to gain the end in view. Instead of sending a large body, it is more profitable to send a few small ones; for,

as these follow different directions, we are able to acquire through them more information.

To slip through unobserved we need few people; for the smaller the parties are the quicker they will march, and get over difficult parts of the roads. A small squad discloses itself suddenly, and its safety lies in the amazement which its unexpected appearance will cause to the enemy, who will lose some moments in making up his mind to attack it. As long as an exploring patrol displays the necessary alertness, there will be little to fear, for its mobility will enable it to escape being overcome. In exploring, we incur the risk of having some parties cut off and captured; our losses will be less if we launch forth only small bodies.

Within a certain just limit we must economize our forces, relying more on artifice and skill than in numbers. In exploring we should endeavour to make up for the latter by the good quality of the elements, attaching more importance to the intelligent capacity of the soldiers, and to the condition of their horses, than to the exact strength of the party. A very small party of men is constrained to adhere to its *rôle* of exploring, for no other reason that it has not the temptation to measure its strength with the enemy. On the other hand, an officer who has the means is more prone to yield to temptation and get involved in a fight.

Brave men must overcome their horror of

turning their back on the foe, when this action is imposed on them by the nature of their duty.

• The obtaining of prompt and certain information is the object to be kept constantly in view; in doing this, prudence is more valuable than reckless bravery.

The habit of galloping back to report what other parties or an officer can see for themselves, which one frequently sees on field days, must be checked; for, acting in this manner, the trooper turns his back on the enemy and ceases to keep, as he should, his eyes constantly riveted on him. The dust and the glitter of arms is sure to draw the adversary's attention, whereas the leading principle in scouting is to conceal one's presence and to strive to watch without being seen.* Galloping along hard roads, rutty lanes, and across heavy ploughed fields may convey an idea of smartness to the uninitiated; in a campaign such a practice would soon knock up the horses, and those of an enterprising cavalry will have sufficient hard work to do without it. It is more in the field than at home that a trooper will have to

* In scouting at field days and manœuvres our horsemen do many things which it would be utterly impossible for them to do in war. We often see them careless in concealing their movements, lingering in dangerously exposed positions, pushing forward and mingling with the adversary's troops. All this is contrary to a true representation of war; consequently great attention should be paid in correcting such glaring faults when they occur.

husband the strength of his horse, for, when the opposing armies come into actual contact, the cavalry divisions will have to take part in the battle and in the pursuit. This they will never be able to do with horses which are worn out.

The cavalry must come face to face with the enemy in the best possible condition. Sobieski enjoins the greatest nursing of the horses. "Only the most constant vigilance of the officers and the incessant care of the troopers" (he says) "can preserve the cavalry from absolute ruin before it arrives on the battle-field."

What ruins the horses in war is fatigue. When a cavalry is enterprising, the utmost care is impotent to prevent fatigue; nevertheless, a thoughtful soldier must strive to do his best, by attentive nourishing and rest, to maintain the forces of his faithful companion.

In all that relates to information in the field all ranks should know, first, all the means which may be employed to acquire it; secondly, what particulars require to be communicated, and in what manner; thirdly, the officer to whom these should be detailed; fourthly, how the reports can be transmitted with speed and with every prospect of their reaching their intended destination.

The greater portion of the information which the cavalry will acquire will be the result of personal observation. This is but natural, considering that it is pushed forward to watch, to

submit the enemy to an unremitting and diligent scrutiny, to spy out all his doings, and to take timely cognizance of all relevant indications. The information which it must seek is, however, not limited to what it can see for itself, but comprises also all what it can gather from the statements of other parties. Every care, nevertheless, must be taken to verify all current reports, always bearing in mind that "they say" is a great liar. The scouts having to keep the enemy constantly in sight, and to conform with all his movements, cannot linger to attend to this; they are, however, followed by larger bodies of men, who can undertake to question the inhabitants, making them reveal all they know of the whereabouts, number, movements, and habits of the foe. Something useful can also be extracted from prisoners and deserters.

Possibly not much time can be spared in making a searching examination of the latter, nevertheless, before sending them under escort to the rear, every endeavour should be made to get from them some insight into the actual state of affairs in the immediate front, being the direction from which they generally come.

On entering towns or villages which have been quitted quite recently by the enemy's forces, the inhabitants should be at once interrogated, and a summary of their statements passed to the rear. The manner in which the interrogation of the inhabitants, prisoners, and deserters should be

conducted will form the subject of a subsequent chapter.

The documents, ordinances, notices, telegrams, newspapers, letters—in short, any printed or manuscript matter found in the enemy's country, may contain very valuable information; the cavalry must consequently be instructed to attach great importance to their seizure. Before the opening of the Jena campaign, on the 3rd of September, 1806, Napoleon instructed Marshal Berthier to solicit the King of Bavaria to have all the letters arriving at Augsburg and Nuremberg from Prussia seized and opened, to learn by their contents the opinion of the commercial world, and to discover any possible movements on the part of the Russians. Prussia, nevertheless, was not behind-hand in her precautions; this is evident from the following passage found in a letter written by Bernadotte to Berthier: "I am told that the Berlin cabinet has ordered the director of the post to stop all letters directed to places which are occupied by the French army. It is doubtless owing to this measure that the opening of the mails at Nuremberg on the 16th instant has yielded no information. There were no letters amongst them coming from Berlin or Petersburg."

Addressing Murat from Auma, 12th of October, 1806, Napoleon writes: "Before noon to-day I will be at Gera. You will see, by the situation the army is in, that I completely envelop the enemy.

However, I need information of what he purposes doing. I hope you will find some in the post-office at Zeitz." One of the letters seized by Lieutenant von Horn at Ménil, on the 18th of August, 1870, was from the minister, Mons. de Chevreau, and informed the prefect that the Emperor of the French was at Chalons, where large numbers of troops were being concentrated.

The mails captured at Nancy in August, 1870, were sorted and translated by the agency of twenty one-year volunteers of the Rhein Dragoon Regiment, mostly young merchants' clerks from Frankfort. The information gleaned from the letters clearly indicated Metz and Chalons as the points on which the French forces were concentrating.

It is not sufficient to look in the post-offices and letter-boxes for any letters remaining there, but all found in public offices, hotels, private houses, etc., should be seized. In time of war, most of the correspondence, official as well as private, will contain something referring to the most absorbing topic of the day, and, when all these items are put together by an expert, they may reveal something which will interest the commander of the army. Individuals, in their simplicity, when writing about their family concerns, freely state what they have seen, without ever suspecting that often by this means they furnish the enemy with valuable information.

Orders, instructions, and memoranda must be

searched for on the belongings of the enemy's dead, of officers especially. Captain Ogilvy, an Irish adventurer, had been accredited as a representative of the Tours government with General Crouzat's army corps. He carried a letter from Mons. Gambetta, in which the war minister wrote : "Gein must be considered as the key of our position on the Loire." Ogilvy was killed at Ladon, and amongst his other papers was found Gambetta's letter, which was an important document for Prince Frederick Charles.

Very relevant items of information can be obtained by seizing the office copies of telegrams, and at times by tapping the enemy's wires. A bold dash round the enemy's flanks will enable an enterprising patrol to get at the enemy's side wires, and the rapidity with which mounted men can cover a certain distance makes this more possible when the adversary has concentrated his forces for battle. When instructions are issued to intercept the telegraphic communication of the enemy, telegraphists furnished with proper instruments will have to be attached to the cavalry. We should not count too much on this, for though an officer may have a fair knowledge of the enemy's language, the result of his superior education, this does not apply to an ordinary operator, who will be incompetent to read off a message sent in a strange language. We must also take into account that an alert enemy will not neglect

to send all messages of a certain importance in cipher.

By appearing unexpectedly on a road which was considered safe, a party of cavalry may arrest couriers and intercept important orders or despatches, thus frustrating some intended combination of two forces. The non-arrival of an order at its destination, or a delay caused by having to make a considerable detour, for fear of falling in with the enemy's cavalry, may have important consequences in the operations. The absence of Bernadotte from the battle-field of Eylau and the consequent collapse of Napoleon's plans for hemming in the Russian army, was caused by the capture by a body of Cossacks of the staff officer who carried the emperor's instructions to the marshal. These cases will be rare now that the telegraph has become the ordinary means of communication in war; besides which the rule is to send orders and instructions by more than one courier and by different roads. The capture of the bearer may not always be rewarded by the seizure of the despatch, for he may have time to destroy it. De Brack recommends the barrel of a pistol as the best place for concealing a written message; if the bearer, on being pursued, sees no prospect of evading capture, by firing his pistol he can destroy it.

Should there be any possibility of the bearer having to destroy the message, the precaution

should be taken to instruct him in what he should communicate to the officer he is sent to. By asking him to repeat several times what has been said, he will have it impressed on his mind, and the sender may feel more confident that he will repeat the message in the exact sense in which it was framed.

When a soldier sets too great a value on his intelligence, he is little disposed to hear what is being explained to him. "All right, enough; I fully understand," he may say before one has quite finished what one wishes to tell him. He hurries off without having taken the trouble to listen attentively, judging that he knows exactly what he has to report. This heedlessness often leads to unfortunate results, and when noticed must be reproofed. The soldier must be trained to listen attentively, so as to convey a message as far as possible in the exact words in which it has been imparted to him.

There are certain minor details in scouting and exploring which should not be overlooked. Horses given to neighing or of a fretful disposition are unfitted for these duties. Every care should be taken to conceal bright ornaments which, by their glitter, may draw the enemy's attention. Clanking picketing chains, scabbard rings, etc., are objectionable, for they make a noise and are heard a long way off. When it is a question of surprising the enemy it is easy to preserve silence. Silence, nevertheless, is not all that is required, for there are other

precautions to be taken to escape being detected when roving through the enemy's country. The lighting of fires, the striking of matches, the manner of challenging, the rules for unsaddling the horses, and the measures of security to be taken, are, all particulars which demand attention. The regulations on all these points should be well known to all ranks, as the safety of a detachment or small part will greatly depend on their observation.

CHAPTER VI.

REPORTS AND THEIR TRANSMISSION.

ALL information acquired must be speedily reported to the officer principally concerned. This can be effected in two ways, by word of mouth and in writing. To send reports orally is a careless way of acting, for of three individuals who have a share in the communication, only one knows exactly how matters stand. Not only the bearer of the message may have failed to grasp its full meaning, but, through distraction or a faulty memory, he may omit to impart some very important particulars. Nor have we an absolute certainty that the officer who receives the message accepts it in the sense in which it was originally framed. In a verbal report there is the chance of its being forgotten, or of its significance being lost amongst the many which crowd on the mind; whereas in a written report we have the exact words of the sender, the document is ever present to be referred to whenever it is thought desirable, and the responsibility of both the sender and the receiver are fixed.

The vagueness which is often the worst feature of a verbal report does not exist when the statement is written down. *Viva voce* reports should be confined to information given direct by the observer to the individual concerned; but even in such cases, before the particulars are passed to the rear, they should be committed to writing. When the soldier who has acquired the news conveys it himself, we are not only able to learn exactly what he has seen, but by questioning we may elicit from him further details. As a rule written reports are only made by officers and superior non-commissioned officers.

Much can be communicated in a few words in the style of a telegram, and, when ordinary foresight is used, no one will be able to plead a want of writing materials. To meet this, officers and non-commissioned officers might be furnished with special note-books with perforated leaves and carbolic paper, by which means a number of reports can be sent, whilst the sender retains the duplicate of each of his messages.

Officers and non-commissioned officers who in the yearly manœuvres and other exercises, have been trained in sending written reports, will experience little difficulty in putting down the exact state of things in a few words. The habit of taking rough notes on the march should be encouraged, for it will help when having to send reports to the rear.

The leader of a cavalry exploring patrol must observe great care in the wording of a report, for it is on this that the officer commanding a cavalry division will decide on the most desirable measures to be taken.

As a rule an officer or a non-commissioned officer should abstain from transmitting any information the exactness of which he has not been able to verify in person. Should they, nevertheless, receive some very important revelation from a scout, from a patrol, or from any other source, they would be in fault to withhold it from the officer principally concerned until they have had time to convince themselves of its accuracy. The correct course to pursue, if the information is of sufficient gravity, is to pass it at once to the rear, then to try by all means to ascertain the truth and send a second report.

A report may contain some particulars which are positive, some which are current, and some which are only a surmise. The communication should always clearly distinguish between the things the writer has seen with his own eyes, and what he has learnt from others. In the latter case the source of such information should be given, stating if it has been corroborated or not by the testimony of others. Though the writer may have good grounds for doubting the accuracy of any hearsay information, he should give it all the same, adding the reasons which lead him to believe that it is

improbable. Very unexpected things often occur in war, and this should make us careful not to suppress any particulars for the simple reason that they appear to us unlikely to be true.

The indispensable qualities of a report, are simplicity, exactness, legibility, and accuracy with regard to time,* or the spelling of names of localities and individuals. All ambiguous expression such as to the right, to the left, to the front, to the rear, should be very carefully avoided; all indications as to the direction should be given with reference to the points of the compass. The banks of streams and rivers should be described as the right or the left bank.

It is of greater consequence to detail accurately the most relevant points than to waste time in describing the more insignificant particulars. The writer must confine himself to furnish precise information regarding the enemy. He should show where he is and what has been seen of him, the different arms his forces are composed of, the number and designation of the various regiments, their approximate strength, and such points as relate to the situation of his camps or bivouacs, his manner of guarding himself, the direction of his march or the strength of the position he occupies.

In describing the enemy's troops, it is seemingly to give the colour of their uniforms and of their facings,

* To secure uniformity of time throughout, the watches on service must be regulated on a standard timekeeper.

to detail any peculiarity in their head-dress and the like ; such particulars will convey a good indication of the units to which they belong.

Whilst giving a brief and clear account of what has been seen or of what has come to notice, an officer or a non-commissioned officer should abstain from giving a very decided opinion. The horizon of any single detachment is very small, and such an opinion can only be formed where the information coming from different sources focuses ; there alone can a proper degree of importance be assigned to each separate report.

When a report is to announce that a party is compelled to fall back, it should clearly show before what troops the retreat is effected.

It is a commendable precaution to note on the report the names of some of the men who were with the sender at the time, thus, in the event of his being subsequently captured or killed, there will be others who can be questioned and give the information in his stead.

Those rendered by superior officers should indicate the steps which have been taken to meet any extraordinary display of enterprise on the part of the enemy, or to defeat any vigorous measures which he may have adopted to strew difficulties in the way of our exploration. Acting in this manner there will be no necessity for the general commanding to issue orders for meeting the difficulties which the cavalry divisions may have to contend against.

The dispositions have already been taken by an officer who, being on the spot, is best able to take in the situation and to judge which is the proper course to pursue.

Some writers, with good reason, insist on the necessity for furnishing a report at certain stated hours, if nothing more, in the early morning and in the evening. The great care which should be taken in sparing any unnecessary fatigue to both men and horses must never be carried to excess. The absence of any report whatsoever from a certain direction is liable to cause uneasiness, and might give rise to all manner of unfavourable suppositions; their rendering, therefore, should not be left to option, but should be laid down as a general regulation.

Even when there is nothing particular to relate, a brief report should be furnished, for it cannot but ease the general's mind to know that in a given district the cavalry has found no trace of the enemy, and that he has nothing to fear in that direction. If the report contains nothing absolutely new, it may nevertheless tend to confirm what has already been ascertained from other sources. A report in writing, on the other hand, is imperative whenever there is something of consequence to communicate, and then it should be despatched as speedily as possible. All that has been ascertained concerning the enemy must then form the subject of a special communication.

The one sent in the evening should recapitulate

what has been seen or gathered from any source during the day. When this is despatched about sundown, it may reach army headquarters before the arrangements for the morrow's movements have been quite completed.

In the morning the report should state what the enemy has been about during the night, what alterations in his position have been noticed, if there was any movement on foot amongst his forces, at what hour and in which direction, if his outposts have been reinforced.

In a report it is always necessary to indicate the distances; this shows the importance which should always attach to judging distances by the eye. However inaccurate this method may be, still, being the most expeditious, it will be found to answer most purposes. Schellendorf* gives the following particulars. "With good eyesight, on an ordinary clear day, it is generally admitted that the following objects should be distinguished on the sky-line—

"At a distance of 15 to 20 kilometres,† church spires and towns.

"At a distance of 8 to 12 kilometres, wind-mills.

"At a distance of 3 to 4 kilometres, chimneys of a light colour.

* Bronsart von Schellendorf, "The Duties of the General Staff," vol. i. p. 264.

† A kilometre is equal to five-eighths of an English mile.

"At a distance of 2 kilometres, trunks of large trees.

"At a distance of 1 kilometre, single posts.

"At 500 metres, the panes of glass may be distinguished in a window, and at from 200 to 250 metres the tiles of a roof or of a building."

The location of cities, towns, and villages can be exactly fixed by the appearance of one spire or church tower, or by the clouds of smoke which, when the air is still, hang about them. To ascertain from a distance whether any one is occupied by the enemy, the place must be watched long and at different times of the day. Sentries will be probably observed posted on some points, also an unusual number of men in the streets will give some indication. It should be carefully noted if at any time during the day the horses are brought out to be watered, and whether trains or convoys of wagons moving into the place stop there or simply pass through.

Not only has the information to be acquired, but it must be communicated as quickly as possible. Things are liable to undergo considerable modification in such a brief period of time, that a particular which was exact at a given instant may in an hour become false and useless. It is obvious that if a commander, not to let a favourable opportunity escape him, has to take his measures and issue his orders on the receipt of very important news, this must reach him with all possible speed.

Other reports may follow in corroboration of the first, but the first must be sent to him with the utmost despatch.

The acquisition of information is only the first part of the task which the cavalry or a reconnoitring officer will have to undertake; the second, and, generally speaking, by far the most difficult, is to let it reach as speedily as possible the commander who is anxiously waiting to receive it. The information itself is not naturally of the same consequence to the individual who acquires it as it is to the general who is far in rear; its value, therefore, will always increase with the speed with which it is placed in his hands.

In a country in which the population is violent and undaunted it will be imprudent to send information to the rear by a single trooper; it may often be expedient for the entire patrol to regain the supports with the intelligence acquired.

Naturally what is furnished by the reconnoitring parties belonging to the cavalry divisions must in the first instance be sent to the officer commanding each division, for his movements are dependent on what is discovered by his advanced parties. It is this officer who has to keep the commander-in-chief informed of the movements and dispositions of the enemy, the information he furnishes in his turn must consequently be a summary of what has been gathered by the reconnoitring parties which precede the march of his division.

Though all reports coming from the front should go direct to him, this will not preclude their purport being communicated to the commanders of any bodies of troops the bearers may meet on the road. With regard to the general situation, it will rest with the divisional commander to consider what particulars out of the reports that reach him he should communicate to the commander of the nearest army corps.

The manner in which the connection between the cavalry divisions and the headquarters of the army is kept up requires to be carefully studied. It is not sufficient to declare in a general and vague manner that it is always of great moment to maintain a constant relation between the various portions of an army; what is required is to lay down in a very positive way the most practical system for keeping up this intercommunication. If in the yearly manœuvres we devote special attention to the most expeditious means for transmitting information to places far in the rear under a variety of circumstances, we shall not leave the matter on service to the initiative of officers who may have a limited experience of the obstacles and delays which so very frequently occur in this particular point in war. Some experiments in this way appear to us to be very much needed, as the subject has never been sufficiently thought out. When the manner of operating has been submitted to a very practical test, it will be possible to frame

valuable instructions on this duty for the guidance of all concerned.

It is not to be expected that the cavalry divisions will be able to make any use of the telegraph for this purpose, for the enemy in retiring will certainly close the telegraph stations and sever the communication. In default of the electric telegraph they might fall back on visual signalling; but the establishment of a good chain of stations—especially in a flat and wooded country—can hardly keep pace with the cavalry advance. The heliograph, the most portable and far-reaching instrument, requires sunshine, which may not be at our command at a critical moment. Ordinarily, therefore, the cavalry will have nothing else to rely on but its own men, selecting always such as are mounted on the swiftest horses.

In the general movement, effectual measures must be taken to provide against the bearers of reports wandering about a strange country, wasting valuable time in seeking for the main body, whose whereabouts cannot but be more or less uncertain. The commander who sends out the reconnoitring parties should attend to this; knowing the direction which they have taken, he should have no difficulty in indicating some locality in their rear for which the troopers bearing messages should be directed to make in the first instance. This rendezvous—which when possible should be in the neighbourhood of some conspicuous landmark—must be

occupied by a strong detachment under command of an officer.

The following is given as an instance of a detachment which went astray from the want of some such precaution :— *

“The 1st squadron of the 10th Hussars, which had been sent (on the 13th of August) in the direction of Nancy, sends back two platoons from Nancy to Château-Salins, to escort treasure and forage requisitioned on the previous day. One of the platoons returns to Nancy to serve a fresh requisition.

“The troopers who had been despatched in the night to report to the general commanding the 5th division return without having been able to find the division. An officer is then sent, who receives orders to report directly to the staff of the Xth Corps.

* * * * *

“The squadron of the 10th Hussars sent towards Nancy is lost to the regiment until the 16th of September. The officer who conveyed to the Xth Corps a report of the operations of this squadron returned without orders, without indications. The captain then addresses himself to the staff of the 4th Cavalry Division, which had then arrived at Nancy; he is given a vague direction to the N.W., on the strength of which he goes wandering about for more than a month in search of his regiment.”

What has been said above is, after all, only the

* *Revue de Cavalerie*, Avril 1895, “Opérations de la 5^e Division De Cavalerie Allemande du 12 au 15 Aout, 1870.”

first step in the transmission of reports ; arrangements must be made for their speedy conveyance to the headquarters of the general commanding, which, under ordinary circumstances, will be many miles in rear. The best and usual system is to divide this distance into stages of moderate length, and whilst advancing to drop a small squad of men at the end of each one. Though these posts should be established in such a manner as to insure all possible rapidity in the transmission of information and orders, we must guard from having too many, on account of the number of cavalry soldiers they withdraw from other duties. The points to consider therefore are, the most advantageous intervals between these posts—so as to spare the horses as much as practicable—and the number of men each one should consist of.

No hard and fast rules can be laid down as to the first point, for the nature of the country and the disposition of the population must have always a certain influence in determining the length of each stage. If the country is hilly, if the roads lead through many woods, hollows and defiles, if the people are hostile, the posts will naturally have to be placed closer to each other than would be necessary under dissimilar conditions.

The time occupied by horses in covering a certain distance might afford a better guide. This, however, demands discrimination, for all that relates to pace seems to be based on what obtains in

ordinary times, when the troopers travel on good roads, in fair weather, and are free from any pre-occupation. In war, having to keep an incessant look out, and the mind being tormented by the possibility of being intercepted, cannot but have, a retarding influence on the pace. If we base our calculations on a medium rate of speed we shall not be far out; if the horses do the distance in less time it will be so much gained, whereas, by fixing on a maximum, we incur the risk of being disappointed in our expectations. General Lewal, who has examined this question in his "*Tactique des Renseignements*," comes to the following conclusions. Average per hour, trot and walk, alternately, 10 kilometres ($6\frac{2}{3}$ miles); trot alone, 15 kilometres ($9\frac{3}{8}$ miles); gallop, 20 kilometres ($12\frac{1}{2}$ miles). In war he considers that for trot and walk alternately, we should count on 8 kilometres (5 miles); for trot alone, 11 kilometres ($6\frac{7}{8}$ miles); for gallop, 15 kilometres ($9\frac{3}{8}$ miles). He quotes an order issued by Napoleon in 1812, in which the emperor demanded a uniform speed of two leagues, about eight kilometres, per hour, and three cases taken from the performances of the German cavalry in their last war, in which the speed attained throughout amounted to about as much.

It is vain to indicate an average for these stages, for their establishment must always depend on the actual conditions of the country, which can only come to our knowledge at the time.

On the point of the number of men to be assigned to each post, General Bronsart von Schellendorf recommends one non-commissioned officer and six men; Perizonius and Colonel de Savoye, one non-commissioned officer and from three to nine men. Much must naturally depend on the amount of cavalry available; with small posts there is always a greater liability of the men being captured. When the men can be spared, there is an advantage in having nine men—as Colonel de Savoye points out—inasmuch as the party can be divided into three watches, one-third to be always ready to mount with a sentry on the look out, the other two-thirds can unbridle, and, if it is considered safe, half of the latter can even unsaddle. A less numerous post has hardly the men sufficient to carry on the work in both directions, particularly at night, when it is always prudent to send the men in couples, not merely to afford each other mutual confidence, but to make head against any unforeseen accident.

Everything should be done to save work to the troop horses and to curtail as much as practicable the number of cavalry men employed on this duty. It will often be possible to secure, on requisition, light and well-horsed two-wheeled vehicles for the express purpose of transmitting reports. In such cases the infantry can replace the cavalry in many stages, and the work can be conducted with nearly the same rapidity.

Amongst the many novelties which have become

very popular in recent years is the cycle, and its application to military purposes has introduced a new element in the speedy transmission of information in war. Leaving on one side the question of employing cyclists as scouts, or of turning cycles into means of transport for mobile infantry, there cannot be any doubt that cyclists can render important services if employed as despatch-bearers, and as means of communication between the advance-posts and the main body in rear. This was the original conception ; however, we find that when in their manœuvres of 1875 the Italians, for the first time, tested the employment of bicycles, the riders principally conveyed the correspondence between the battalion commanders and the chief of the supply service.

Cyclists can go wherever cavalry can, and can not only keep pace with its movements, but in the long run are able to outstrip the very best horse. They can consequently relieve the troopers and horses from endless fatigue in carrying messages and reports. Thus, by reducing the pure courier work, they would keep the horsemen more together, limiting the number of relay parties to be echeloned on the roads. In cycling there is no animal to feed, groom, and look after ; there is no animal liable to become disabled ; and, whereas the sound of a horse moving at speed—above all in a still night—is heard a long way off, the cyclist progresses at a rapid pace without making any noise.

Cyclists can travel long distances without relays, and at the end of a long run are not borne down by fatigue. A man on horseback presents a large target, not so a man on a bicycle; certainly the former can make use of his weapons if attacked, this a cyclist cannot do, and he must simply trust to his speed. If a road is considered unsafe they can nevertheless move in couples, and the precaution can always be taken of sending other parties by different roads.

The expertness in reading a map which they acquire in the pursuit of their exercise makes cyclists very adapted for moving through a strange country. It will be objected that they require good roads and not a too hilly country, but many provincial roads and country lanes in dry weather are fairly suited for the purpose. Given, however, that a cyclist, for any reason whatsoever, cannot follow the most direct road, he can make a detour, and his speed will enable him to reach his destination in very good time. The average speed per hour which can be calculated on in day time ranges from nine to thirteen miles; at night it is much less, and seldom exceeds six miles—on a known road it will be something more. A speed of thirteen miles per hour, kept up for several consecutive hours, is a good pace for maintaining communication between the fractions of an outpost force, or between the advance-posts and the main body. We should reflect that whatever may be the speed of horses, at

every relay there must occur a loss of time, from the despatch having to change hands, having to be registered and receipted. Not so with cyclists, for they can travel from end to end. The speed of horses is also much reduced, and the chances of a fall are augmented, when the roads are made slippery from frost; but this does not present quite the same impediment to a cyclist.

The records of long rides which have been performed by well-trained cyclists are well known, but what is to our purpose is to see if their speed and freedom of going can be turned to account in war. What we mainly advocate is the substitution of cyclists for troopers in the duty of transmitting reports and conveying orders, for every one admits how ruinous this service is to the horses. In the field they lose condition and break down through hard work, exposure, and irregular feeding, and, if they can be relieved from much travelling backward and forward on hard roads, it will be so much gained when the time comes for the cavalry to measure its strength with the enemy.

The best field for cyclists is the zone between the independent cavalry divisions and the head of the heavy columns, where the roads have not yet been cut up by the passage of artillery and heavy wagons.

CHAPTER VII.

PATROLS AND SCOUTS.

PATROLS are the most effective weapon to employ against an enemy with whom we are not in immediate contact. A system of patrols—what we might call movable reconnaissances—constantly following each other is preferable to a permanent observation from certain fixed localities.

There is no surer protection against surprise or any better means for discovering what is passing than constant patrolling. Patrols have the advantage over sentries that, having to keep in motion and to exercise all their powers of sight and hearing, the men are not so easily overcome by lassitude.

Of late years the system of employing patrolling sentries in lieu of standing sentries has been found to possess certain advantages. One of the latter is tied down to a given spot, and his exact locality is always known; whereas a patrolling sentry has a much larger beat assigned to him, which he can watch in what manner it may appear to him best. He is, consequently, not so likely to become either

careless or wearied by solitude and the monotony of his duty, and may at any moment drop on a trespasser or on an evil-doer. Patrols have a large beat, and their hours and direction being always uncertain, the enemy is liable at any moment to fall in unexpectedly with one of them, which cannot but lead him to conduct himself with great caution. Any aggressive movement on his part will be detected by one of our patrols, and in certain cases his intentions will be revealed sufficiently early to enable us to take prompt steps to defeat them.

It is impossible to attach too much value to the confidence which patrols give to a commander who understands how to use them with judgment. The duty, when properly carried out, will undoubtedly cause considerable fatigue to the troops, but this is one of the penalties of war.

The work of the independent cavalry divisions is nothing more than an extensive system of patrolling, and the cavalry regiment attached to each division will have, amongst other duties, to furnish many small parties to examine the country and to look out for the enemy. Eminently adapted as horsemen are for patrolling duty, a good deal of it will, nevertheless, have to be done by the infantry. In patrolling, cavalry has a superiority over the latter, inasmuch as it can be sent to a greater distance, and can transmit information with greater rapidity; but, though it has been said that "a good horseman and a good rain can pass through

everything," there are many localities which can be more thoroughly searched by infantry than by cavalry.

A patrol should be of sufficient strength to accomplish the end in view, which in most cases will be to ascertain the presence of the enemy. A large number of men, besides that they are more easily detected than a few, are more liable to be led into fighting, which is not the purpose of a patrol.

Frequent patrols composed of a few men will save the employment of many detachments, and will render greater services.

The important consequence which attaches to this duty demands the employment of the most intelligent, brave, and self-reliant officers and non-commissioned officers as leaders of patrols; and a capable commanding officer will soon be able to discover which are the most reliable men for this work. The relevance of the information required will of itself indicate whether an officer or a non-commissioned officer should be detailed to command; the former are never sufficient in number to undertake this service, and, having other equally important duties to perform, will have frequently to be replaced by the most intelligent of the latter.

Circumstances sometimes occur in war against which it is next to impossible to provide, which it is hard to foresee, and which, though slight

in themselves, are capable of changing the course of events. Deplorable results often spring from very little causes, consequently unflagging attention to every detail, even to the smallest, is necessary. Every possible precaution must be taken to prevent being taken unawares, for very little is needed to expel coolness and the power of reflection from the mind, and to replace these qualities by dismay and panic. The real danger of a surprise lies in the disturbance it causes in the mental vision of the individuals surprised.

It is an error to assign to the outposts of an army a purely defensive rôle. The object of the outposts does not merely consist in guarding against surprise and in gaining time for the troops to get under arms; they have likewise to watch the enemy, to ascertain what he is about, and to take advantage of any unexpected opportunity. All this, however, cannot be done if we remain passive and abstain from sending out patrols to discover what is going on. To be effective the exploration must always be carried to a certain distance, for if the distance be very limited the enemy may appear of a sudden, and give us no time for making the most effectual dispositions.

An officer commanding a body of troops should, above all, consider it a disgrace to be at any time taken unawares by defective look-out, carelessness, or laxity. Patrolling by day and by night should consequently never be neglected; this is more than

ever necessary when a camp, bivouac, or cantonment is occupied for several consecutive days, there being always in such cases a probability of the enemy having some knowledge of our whereabouts. We should always be on our guard, but more so when we have before us a brave and enterprising adversary, who may at any moment attempt a bold stroke.

The worse the weather is, the more intense is the darkness, the more the *morale* of the troops is shaken by the unfavourable result of an action, the greater should be the pains taken in scanning attentively all that is occurring around us.

One of our war correspondents, Mr. A. Forbes, shows, in the following words, an instance of neglect in patrolling during the last Franco-German war. "If any further proof were wanting that Bazaine had no conception how gravely his situation was compromised, it is to be found in the fact that he could not have scouted the ravine of Gorze or the region south of it. If he had done so on the 15th, he would have found it swarming with the ever-vigilant cavalry of Rheinbaben's division,* which bivouacked at Xonville, some distance to the south-west of Mars-la-Tour."

Night is always fruitful of opportunities for the man who is bold and venturesome. York's night attack on Marshal Marmont's corps at Athies in 1814 would have been frustrated had the French sent patrols in the direction of the enemy. Marmont

had allowed his troops (which were very young) to spread out in search of food and shelter; his guards were inadequate or wanting. He was suddenly attacked, lost 2000 prisoners, and 45 guns, and his rout obliged Napoleon to withdraw from the battle-field of Laon.

Previous to attacking the fortified position of Tel-el-Kebir, Sir G. Wolseley had ascertained that the Egyptians had no outlying pickets at night in front of their works and only posted them at dawn. This singular want of military precaution, with unpardonable neglect in patrolling, favoured the night march of the British troops, and enabled them to approach undiscovered within striking distance of the enemy.

In the regimental history of the 2nd Body Guard Hussars, some extracts of which are given in No. 166 of the *Royal United Service Institution Journal*, the following passage explains some of the measures taken by the 4th German Cavalry Division in its advance on the Moselle. "Security, during a halt, was based mainly on the employment of reconnoitring patrols pushed out widely from the advanced guard and the flanking detachments, and on patrols sent out during the night in fixed directions; there were fewer sentries, more reconnoitring; less posts, more patrols. Instead of piquets, there were generally given standing patrols or non-commissioned officers' posts which soon acquired the name in the Division of 'cossack posts.' Patrols

from the main body of the outposts, always formed from the squadrons of the advanced party, patrolled specially important roads and localities, and officers were sent from it on special reconnaissances."

"Ludovic Halévy, in his work " *L'Invasion*," gives in the following words Mère Jourdan's account of the deportment of the German officers at Étretat: " In fact, they were always about; they sent couriers this way and couriers that way. At night there were always two or three officers who did not lie down to sleep, who watched the soldiers, who commanded the patrols. . . . About midnight on Sunday the captain received a large letter. It was from the general. I do not know what it contained, but I know that the officers did not lie down to rest during the whole night, that they were going and coming with a good deal of movement."

Whatever lack of enterprise the enemy may have hitherto shown is no excuse for a relaxation of vigilance; this must endure for the whole period of a campaign. There is no saying when an accession of numbers, or any imperative injunctions to show more energy, may not drive a sluggish opponent to deliver an attack or to attempt a surprise.

There are certain leading principles that should always govern the employment of patrols. Patrols are sent out to explore, to ascertain the presence of the enemy or of armed parties, to gain information, but not to fight. Not only is their strength generally small, but the sooner they can regain the

main body, the readier the troops, by being warned of the approach of the enemy, will be able to get under arms and turn out. Their retreat, nevertheless, should never be too precipitate, and should be conducted with a certain amount of judgment, for, as the main object is to gain accurate information of the enemy's intentions and numbers, a patrol should remain in observation as long as its leader considers that this can be done without incurring the risk of being cut off. All artifice is of little avail in patrolling unless it is combined with courage and prudence.

Patrols which always leave camp at the same hours and follow the same routes soon become objects of observation. These habits will be reported to the enemy, or may be revealed to him by an unwary prisoner. Knowing the ordinary time the patrols are out, the adversary may attack when they have returned to their quarters. All patrols should be sent out at varying hours; the only exception to this being those which, as a standing rule, are sent out in the early hours of the morning to discover any intended attack which may have been prepared under cover of darkness. At break of day patrols must be more frequent; they should not limit themselves to beat the ground in the immediate vicinity of their posts, but should push boldly forward in the direction of the enemy.

When the enemy has held the same ground for some time, these patrols are sent out to

ascertain if he has made any movement, by verifying that his outposts continue to occupy the same localities. The march of large bodies of troops commences at a very early period in the morning, consequently it may be presumed that their advanced posts will also quit at an early hour the positions which they occupied the previous day.

The officer who is responsible for the safety of the camp, bivouac, or cantonment, should always select his own hours for the departure of all other patrols, and should only issue his orders at the time when they have to set out. The orders given to their leaders should clearly indicate the road they must follow, the extent of their exploration, and any special points on which information is required.

A patrol which goes only a very short distance from camp is of little practical use. The thorough surprise of the 5th French Corps at Beaumont on the 30th of August, 1870, was unquestionably due to the bad exploration and want of all enterprise on the part of their cavalry. On this point the German Official Account observes: "Outposts were apparently either not posted at all, or at any rate in a very insufficient manner for the protection of those resting; isolated cavalry patrols, which advanced to short distances beyond the camps, returned without having discovered the approach of the German troops." *

Danger is often greatest when the appearance

* "German Official Account," vol. ii. p. 243.

of it is least. In the same war we have a notable instance of the risk incurred by a relaxation of vigilance after the patrols have returned to camp. On the 16th of August, 1870, the Germans made a reconnaissance in force upon the French camp in the vicinity of Rezonville. Intelligence had been received that close to the village of Vionville there was a hostile cavalry camp, in which cooking was going on, and which in other respects was quite off its guard. A battery was brought up, and opened an unexpected fire at a most effective range upon this camp of Murat's Dragoon Brigade, especially upon some squadrons which were just moving off to water. At the very first rounds of shell the hostile cavalry fell into wild confusion. An attempt to advance north of Vionville was made by a French squadron and a field battery, but, unable to hold their ground under the fire of the Prussian guns, they speedily followed the rest of the cavalry, which abandoned the camp in the greatest haste and disappeared in an easterly direction.

Our oldest soldiers will recollect a surprise which occurred during the Indian Mutiny. After the fall of Delhi, Colonel Greathed was sent with a column to reoccupy Agra. As he neared that city, he was informed that the insurgents from Dholpore were ten miles from cantonment, encamped beyond the Kári Nuddi. No effort was made to ascertain by means of patrols if the conjecture of the Agra officials was correct. The

camp was laid, the troops set about pitching their tents, picketing their horses, and looking after the unloading of the baggage, when they were of a sudden attacked by a large body of the rebels.

The orders should lay down how far each patrol should proceed. The leader can be shown any point on a map as the limit of his exploration; if a road is studded with milestones, a given number of miles may be assigned, or a stated period of time may be given for remaining absent, which can be divided into two portions, one for going, the other for returning.

In the preceding chapter we have made some allusion to the employment of cycles; these handy little vehicles might often come in very useful for patrolling. They would enable a patrol to explore to a greater distance, they would spare considerable fatigue to the men, they would cause the duty to be performed in a much shorter space of time, and with great freedom from noise.

The route selected for patrolling should vary as much as possible; certainly the roads which lead in the direction of the enemy will be few, but even these few can be beaten alternately in going and returning. The main thoroughfares, though the principal ones by which an army will move to attack, are not the only roads by which a force may advance to surprise the enemy, consequently all by-roads or even tracks should be explored by our patrols. Not only those leading to the front

should be examined, but all those round the camp, for the enemy, knowing too well that his adversary will always be more on the alert on the former, may select for his march a more circuitous route, on which there is less chance of falling in with any patrols.

Whenever it is practicable, patrols should be sent round the enemy's flanks and rear. A party skilfully led may attain these points without coming to blows with the enemy's patrols. Cavalry, owing to the greater distance it can reach, and the rapidity with which it can withdraw, is the arm best suited for these circuitous explorations.

Whatever road may have been followed in going, a patrol should always return by a different one; for, giving the case that it has been observed by the enemy, this precaution will defeat any attempt that he might make to cut it off. It will be difficult for the enemy to lay an ambush when he does not know the road by which the patrol is likely to return. Besides, having already ascertained that there is no enemy on one road, by returning by a different one the patrol can make sure that two roads are clear. In getting in rear of the enemy's lines, or in breaking through his outposts, this is more than ever necessary, for the alarm will soon be raised, and measures will be taken to intercept the too-adventurous party.

In a strange and difficult country a patrol may have to trust to the leading of a guide, and every

precaution must be taken that he does not spirit himself away.

The leader of a patrol should be allowed a certain discretion, for, should he come on very suspicious indications, he may have to halt and look about until the circumstances have been explained to his satisfaction. Let us assume that a commanding eminence has been reached from which the march of one of the enemy's columns is seen, the leader of a patrol would be justified in proceeding no further, and in remaining out beyond the time assigned to him, so as to complete his estimate of the enemy's forces.

A patrol should march in single files, the men following each other with an interval of some paces, the leader of the party in the centre. The position of the latter is of consequence, for were he to take the lead, with his capture the soul of the patrol would be lost. The men must take advantage of anything which will conceal them from view—walls, hedges, ravines, woods should all be turned to account, and any open ground should be crossed as quickly as possible. One or two men must be detached to examine objects on the flanks. Villages should be avoided and passed round, after their approaches and outskirts have been reconnoitred. Should a patrol be specially directed to visit one of these, the precaution should be observed of sending one or two feelers to explore before the rest of the party enters it.

The primary object of every patrol being to spy out the doings and movements of the enemy, the leaders must not rest satisfied with simply following the road, but should quit it to ascend any eminence, steeple, or building from which an extensive view of the country round can be obtained. The eye will thus examine a very much greater extent of ground than the patrol may have been directed to explore. On the 17th of August, 1870, from the spire of Metz cathedral, constant streams of German troops were seen crossing the Moselle at Ars and Noveant, all heading for the plateau of Gravelotte.

Should a patrol remain absent beyond a reasonable time, a second and a stronger one should be sent out in its track, and it would not be amiss if the troops in camp were made to stand to their arms.

The special object of the patrol is confided to its leader, and a party of men is detailed to accompany him to make head against any of the enemy's patrols, to furnish the men required for examining the ground in front and on the flanks, or to take back to camp any pressing piece of information. As the patrol moves off the officer or non-commissioned officer in charge should communicate to his party the nature of their reconnaissance, enjoining them to pay particular attention to the road they may have to follow in retiring, and sharing with them all the details which

gradually come to his notice. By paying proper attention to these details, in the event of the patrol being overcome, there will be a prospect of some of the men finding their way back to the camp and being able to give a correct report of what has been observed. On its return to camp the leader of a patrol must at once make a very minute report to his commanding officer of everything which has come under his notice.

As an example of a well-conducted patrol, we may take the following.* "Lieutenant v. Horn, with eight hussars from the 3rd squadron, had been sent on from the Moselle, a day's march in front of the advanced guard, the leading cavalry soldier in front of the army. For the first two days he met with no adventure, and on the 18th of August, about 5 p.m., he reached Ménil, and there captured the post-bags, sending them back to headquarters. From thence he proceeded to Ancerville, which he reached about 9 p.m., where he stumbled upon some of the enemy's cavalry, who attempted to pursue, but, thanks to the darkness, the Prussians escaped. They rested for the night in a wood to the north of the village, and at 4 a.m. the sentry suddenly reported that not 300 yards distant a line of French skirmishers, followed by a battalion in close order and some mounted men, was moving on the village of La Houquette.

"Bridling up in silence—the horses were just

* See *Royal United Service Institution Journal*, No. 166, p. 1273.

being fed—they withdrew by a by-path unobserved, but keeping the enemy in sight, on Stanville, a village they had ridden through in their advance. Here they fell in with two troops of the 1st squadron, and whilst the latter kept an eye on the enemy, they dismounted, looked to their horses' shoeing, off saddled, and got some food, sending off a report to the division. About noon they crept out again, and laid themselves in ambush near the village of Aulnois, and presently two squadrons of chasseurs and some infantry began to move in their direction, and some of the patrols passed within 30 yards of their hiding-place, the cavalry halting and dismounting close in front of them. Meanwhile the supporting troops in Stanville moved off to the northward, and, combined with them, the patrol got involved in a sharp fire-fight with the enemy, which lasted for fifteen minutes. . . . Towards evening General von Krosigk, who, attracted by the firing, had ridden up from Ménil to Aulnois, ordered Lieutenant v. Horn to continue his ride, with the rest of his men, viz. six hussars and six dragoons, additional, as soon as it got dark, towards St. Dizier, and about 9.30 p.m. they moved cautiously forward by Aulnois, La Houquette, and Ancerville, finding the ground previously held by the enemy unoccupied. About 2 a.m. they reached St. Dizier, which was also found untenanted, but the inhabitants reported that shortly before their arrival 8000 men, principally cavalry, had withdrawn

through the town towards Chalons, and this information was confirmed by their deserted bivouacs. In the town they destroyed the telegraph and seized the mails, levying also a sum of two thousand francs in gold, and liberating a wounded prisoner taken from the 5th Dragoons. Finding the enemy lay only some 4000 yards beyond the town, and fearing a reconnaissance in force, they retired to Ancerville, after sending a report, and there were picked up next morning by the rest of the regiment."

An active, intelligent, and well-mounted officer or non-commissioned officer, at the head of a few troopers, will often be in a position to observe the enemy better, and to report more fully and to the point, than a multitude of detachments and patrols. When any one is selected for this duty, he will be accompanied by a small squad of well-mounted men to support him, to aid him in gaining information—as several pairs of eyes are always better than one—and to afford him means for passing important news quickly to the rear. The commander must try to reach speedily and without being detected such eminences as promise an extensive view of the country in front. He should proceed at a fair pace, nursing the strength of his horses, for it may at any moment happen that such a small squad may be compelled to trust to their speed, and horses which are blown have not a fair chance. In setting out it is recommended to follow the roads rather

than to proceed across country, as in the latter case the troopers might experience some difficulty in finding the right road when despatched to the rear with messages.

In some instances officers may be detailed to remain in observation for an indefinite period of time in the vicinity of the enemy, or in certain localities which are well adapted for watching what is passing or for obtaining relevant information. The manner in which they can best perform the duty intrusted to them must in such cases be left to their judgment; they must be allowed full discretion to move from place to place, to advance or to retire, as the accomplishment of their task and the action of the enemy may enjoin.

It may occur that the duty on which a patrol is engaged, or some other special circumstance, may prevent its rejoining the main body the same night. When compelled to remain out, the party should take shelter in some isolated and concealed locality, not likely to be suspected, and where one or two men on foot can watch far to the front. The spot should be difficult of access, with a clear line of retreat. It may have to be occupied secretly, stealing up to it as darkness sets in. Absolute silence and great alertness must be observed. If the patrol is furnished by the cavalry, each trooper should lie down, holding his horse by the bridle, one or two patrolling round the outskirts. At the first sound of the alarm, all should be in the saddle.

Whenever it is considered necessary to rest the men and horses during the day, some spot should be chosen away from any inhabited locality, and where there is an extensive view of the country round, which will make it impossible for the patrol to be surprised.

As an example of the measures taken to prevent being caught unawares, we quote the following passage taken from a letter written by the Maire of Brunhamel on the 2nd of February, 1814, to the prefect of the Aisne. "The inhabitants of Maubert-Fontaine are confined to their houses and not permitted to go out. The enemy's horsemen attach their horses to the people's doors, and appear to be always on the look out. They lie down, armed, close by their horses, which are fed in the streets."

When a detachment is sent to damage railways and telegraphs, to destroy the enemy's stores, to collect provisions or to cut forage, before setting to work, patrols should be sent far above and below the point indicated, to ascertain if there is any probability of the working party being surprised or attacked. What we look from these patrols is to bring information in such good time as will permit of the work being suspended, and will enable the detachment, according to circumstances, either to withdraw or to make ready to resist the enemy. In the example alluded to in Chapter IV., the officer commanding the party of the 10th Dragoons was surprised because he omitted to send patrols to

explore in the direction of Nancy and Metz. Lieutenant v. Toll's scouts were not posted far enough away to give sufficient time to the troopers to regain their horses and get in the saddle, whilst the smallness of his party did not admit of a reserve being formed to protect the rallying of the rest. In a distant dash of this nature, measures of security are more than ever necessary, as it is impossible to know what forces the enemy may have at his disposal.

A scout is an individual who is sent to discover the actions and movements of the enemy. Scouting may be done either by our cavalry or by a special body of men well acquainted with the country and with its people. Though the action of the cavalry screen is nothing else but scouting, we may nevertheless be compelled to raise a special body of scouts when we have an insufficiency of cavalry; when the nature of a country is very unfavourable to the use of that arm; or when it is of great moment to spare our soldiers severe hardships in a trying climate to which they are not inured.

The British soldier is not very proficient in the art of scouting; living in a civilized and peaceful land does not give him that natural aptitude for that special kind of work which men, dwelling in ruder countries, are forced by circumstances to acquire. The best course to pursue in some of our wars, therefore, is to raise an efficient body of scouts taken from the most warlike tribes.

There is a certain fascination in danger for men who lead a wild and turbulent life, and many venturesome, intelligent, and active men can be attracted by the offer of liberal terms. Natives of certain countries possess a wonderful power of sight and hearing, coupled with quickness in detecting any dangerous indications. A rude life and habit have developed their power of observation to such an extent that the most minute signs and sounds never escape their attention. These are the men to employ as scouts, and if led by daring and enterprising officers, who by their soldierly qualities can gain their esteem, will render very important services. Their familiarity with the language, customs, and habits of the adversary, enables them to gather certain items of information which regular troops, campaigning in a strange and wild country, would never be able to procure for us.

A special body of scouts, as an auxiliary to the regular cavalry, can come in useful at all periods, but, above all, at night, which is the time when the contact is so easily lost. The scouts would continue to search for the enemy, thus securing for the exploring patrols, who have been at work the whole day, that rest which they will necessarily require.

It has been shown in Chapter IV. how in most battles the contact with the enemy, or, in other words, his real line of retreat, was lost. A body

of scouts—who from the very nature of their duties would not be called to participate in the battle—could be kept fresh and ready to launch out as the contest begins to flag. Their special object would be to attach themselves to the retiring troops, and indicate to the pursuing horsemen the direction which they have followed.

With a special body of scouts we can venture further, and employ them to ascertain what occurs beyond the exterior fringe of the enemy's army. Their knowledge of the country, their innate cunning, their fertility of resources, their aptitude for stratagems, enables them to profit by any omission or negligence which the enemy may be guilty of in covering himself effectively. Being all ears and eyes, always on the look out, they can study how to insinuate themselves through his parties by taking advantage of all the accidents of the country. Darkness will help them considerably, as it will enable them to creep up without being discovered. Their ready detection of danger will warn them when it is necessary to withdraw.

To enable them to do all this, they must be allowed more latitude than is generally given to regular troops. A too rigid discipline would only impair the value of the services they can render us.

To gain really useful information we must incur certain risks; we may have to deplore the loss of a few valuable scouts, but the same losses would be more seriously felt were we to employ only

regular troops, which are more difficult to replace. Scouts taken from the native tribes are more able to endure serious fatigues and want of rest; the men are thoroughly acclimatized, are hardened by a wild life which is natural to them, and their maintenance requires less means.

No obstacle ever stops the man who finds himself constantly contending against necessity; if any serious difficulty arrests him, his dexterity will always suggest means for overcoming it. When cunning must be met by cunning, the natives acquainted with the language, manners, and customs of our opponents are far better adapted for scouting and gaining intelligence of the enemy's doings than our soldiers.

Employed always on the same duty, they will soon become very keen in their work, and being well to the front, one of these scouts, if captured, will not be in a position to give the enemy any information which may be hurtful to us.

A right selection must be made when organizing a body of this description. Some tribes are better endowed by nature for the scouting service than others. In the Zulu war the Basutos were good scouts; John Dunn's scouts were reputed perfect. They worked in a broken and wooded country, and, although on foot, their activity and endurance enabled them to keep pace with our cavalry. The excellent work performed by the scouts commanded by Lord Gifford in the advance on Coomassie has

been deservedly recorded in the accounts of the Ashante war. In General Arimondi's notes and documents relating to the battle of Agordat he says, "The Barka auxiliaries carried out admirably the intelligence service assigned to them."

In General Sheridan's report on the operations of the 1st and 3rd Cavalry Divisions of the Shenandoah, from the 27th of February to the 28th of March, 1865, he brings to General Grant's notice the services of his intelligence staff in the following words: "Major Young, chief of the intelligence and spy service, and the thirty or forty men of his troop, who have constantly and at the peril of their life marched everywhere they were sent to, to obtain the indispensable element of success—information—have a right to my gratitude. Ten of these men have been lost."

CHAPTER VIII.

RECONNAISSANCES.

IN nothing more than in war, knowledge is power. To be in a position to form his plans, a commander must know with a certain degree of accuracy the nature of the country, the situation and disposition of the enemy's forces, with a number of other important particulars.

The many precautions taken by a skilful enemy with the intent of keeping his opponent from becoming acquainted with any details which refer to his position, strength, and general condition, make it imperative to resort to certain measures whereby a commander may be able to gather a somewhat definite knowledge on these heads, either by force or by stealth. The expedient most frequently adopted is to send in the direction of the enemy, or round his flanks or rear, an exploring party, and to trust to its picking up just the kind of information which is most needed. An officer or a detachment are said to effect a reconnaissance when they are sent out to ascertain certain unknown particulars, or to form from personal observation

an estimate of the actual military situation at the time being.

The chief element in every reconnaissance is research. To reconnoitre is to seek, and whether we seek to know the enemy's whereabouts and strength, the peculiarities and features of a tract of country, or the nature or extent of the local resources, the operation falls under the heading of a reconnaissance. It is through them that the general in command determines which are the best measures to adopt to attain the object he has in view.

Reconnaissances can be divided into three distinct classes—

1. Tactical reconnaissances, whether offensive or not, made to throw as much light as possible on the position, forces, and movements of the enemy.

2. Topographical reconnaissances, whose object is to collect information on the topography of the country, to complete the information contained in the maps, to report on the actual state of the roads, watercourses, woods, and defiles, to examine the most suitable positions for attack or defence, and to pick up many important particulars which are necessary to be known so as to determine the nature of the operations and the march of the columns.

3. Statistical reconnaissances, which embrace all information bearing on the resources of the theatre

of war, and on everything which may be utilized for the maintenance of an army in the field.

Small reconnaissances, such as are performed daily, come more under the heading of exploration than of reconnaissance. They really partake of the nature of a patrol, they have for object to expose any surprise prepared by the enemy, to ascertain if his outposts have been augmented or withdrawn, and to see if any unusual bustle in the camps or bivouacs indicates a preparation for a march or for an attack. Patrols having a general object can be confided to any officer; reconnaissances which have a special one, are generally intrusted to officers who possess certain particular qualifications.

Many reconnaissances have yielded bad results through insufficient investigation or too hasty conclusions, not seldom through the carelessness of the officer who made them. On the 23rd of June, 1859, the day before the battle of Solferino, the French pushed reconnaissances beyond the Chiese, and these came into contact with the Austrian posts. The fact that the latter were of greater strength than those met in the preceding days was attributed to a desire on the part of the Austrians to ascertain the exact point on the Mincio the allied armies were making for. In reality the Austrian army was retracing its steps, and in lieu of retiring was marching for the Chiese. An old woman a French officer met on

the road informed him of this fact, but her statement met with no credence, and no steps whatsoever were taken to verify her warning.

The day before the battle of Marengo, the staff-officer, sent to ascertain the existence of any bridges over the Bormida, performed a reconnaissance. On his reporting that there were none, Bonaparte felt easy, to be undeceived on the following day when the Austrian columns crossed the river at three points to attack him.

Most of our treatises on reconnaissance concern themselves principally with topography, and do not treat sufficiently on the measures to be observed in acquiring a knowledge of the enemy. Reconnaissances of ground are very necessary, but examinations of the actual military situation, founded on observation made at the time, are of still greater importance.

Generally speaking, reconnaissances are now more confined to gaining information on all that relates to the number and position of the enemy, than to a close study of the special features and characteristics of a given tract of country. We have in our days more accurate maps to guide the military operations, more diffuse works on geography, are made more familiar with map-reading, and have an intelligence staff charged in peace time with the collection and classification of topographical details.

Tactical reconnaissances are of two kinds:

some are conducted, so to say, by stealth, in which case the enemy must be surveyed by individual officers or small parties without his perceiving it; others are carried out boldly by a large number of troops, with the object of drawing him out and forcing him to make a display of his strength and position. Where the aim of the first is to acquire all possible information without fighting, the second has to drive in the enemy's pickets, reach the supports, and penetrate even beyond them, if it can. The general object of most tactical reconnaissances, therefore, is to scrutinize the enemy's position, and, from what actually comes under observation, to arrive at a knowledge of such particulars as are most necessary to the general commanding for the preparation of his plans. An intelligent reconnaissance will never fail to throw some light on the enemy's intentions.

Reconnaissances are not invariably effected with the object of preparing an attack; under certain circumstances they are enjoined to decide if a retreat is imperatively necessary.

Under every aspect the work performed by the cavalry screen may be regarded in the light of a constant reconnaissance, for it is the cavalry that we must look to to obtain for us the greatest amount of and the most timely information. Reconnaissances, nevertheless, will often have to be led by staff-officers, when the object to be achieved demands the employment of an officer

of considerable experience, or of one who is gifted with more than average attainments, and possesses the confidence of the general commanding.

A special reconnaissance must have a well-defined object in view, which the officer in charge must scrutinize under every possible aspect. He must examine things on the spot, casting his eyes in every direction to gain the required information by diligent and minute observation. The necessary qualifications for an officer detailed on this duty are intimate knowledge of the conditions of an army in the field, experience, and *coup d'oeil*. He will often have to accompany the most forward scouting parties, and make his observations whilst these feel for the enemy.

For a special reconnaissance the general commanding will select the one of his staff-officers whose knowledge, experience, and capacity he values most. Occasionally he may have to employ an officer who possesses a wide technical acquaintance with a certain subject, or great knowledge of languages. The officers of the intelligence staff will be often chosen to conduct a reconnaissance or other missions in which the aim is to gather information. They are especially fitted for this work, having greater aptitude and being better prepared for it than others; this duty, in short, falls more exactly within their *rôle*.

To conduct a really able and useful reconnaissance is a matter of considerable difficulty, if an

officer is quite in the dark as to the actual state of the situation. To employ generally the same officers will have several advantages, for they will know what previous reconnaissances have elicited, and what country has been already examined; they will consequently lose no time in procuring information which is old, and which has already been found to be valueless. Every reconnaissance should have some connection with the preceding one, so that the officer who conducts it may not be quite ignorant of its results, and may be able to work on the track which has already been discovered. The officer will have a very weighty duty to perform, and cannot be allowed, like a cavalry scouting party, to work haphazard; it is very important, therefore, not to keep from him anything which he should know, or which may be trusted to his common sense.

An officer who is detailed to execute a reconnaissance should never rest satisfied with collecting information on such points as have been indicated to him. He should keep all his wits about him, and find out all that his judgment tells him to be desirable to know. The object for which an officer is sent on this duty is to examine and judge for the general who is in rear, so that on his return he may be in a position to submit to him in writing, or by word of mouth, a clear picture of what he has seen and the conclusions he has arrived at. His report must be complete, for the officer who has

personally observed is obliged to show to the one who has not the impressions he has received, the ideas which existing facts have suggested to him, and the possibilities which have struck him. It will be of little consequence to give a description of the ground, without showing the different ways in which it can be turned to account; to describe the enemy's position, without indicating the manner in which it can be best attacked or turned; to state that certain bridges or roads have been damaged, without adding where the means can be found for repairing them; to note that a river cannot be crossed, owing to the demolition of a bridge, without having well ascertained that there are no fords that can be made use of. In short, a good report, whilst showing the extant obstacles and difficulties, must clearly indicate the manner in which these can be surmounted and overcome. From all this it will be seen what capacity, what knowledge of all the details of his profession, what diligence and forethought an officer intrusted with such an important duty should possess.

An officer sent out to reconnoitre should bear in mind that the most perfect reconnaissance is worthless if its result is not known at the right time.

The following examples will tend to show the important advantages which can be obtained by the employment of reconnaissances conducted with intelligence. At five o'clock in the evening of

the 24th of March, 1814, Marshal Marmont arrived at Soudé, where he took post. He writes: "As night came on, I saw a large belt of horizon, which extended for several leagues, lighted by fires. Were all these fires those of the enemy? or were some those of the French, and, if so, which were the latter? To solve these three questions I selected four very intelligent officers, who spoke German and Polish, and I set them off in four directions, each officer with an escort of four men. They were ordered to get close, to see, decide and enter into communication with the enemy's posts, if they considered they could do so without incurring serious risks.

"My four reconnaissances returned before the end of the night, and all four brought the same news. All that was in front of me was the enemy. The Emperor Napoleon had crossed the Marne, and was moving on Saint-Dizier. One of the officers had even joined a post of Wurtemberg troops and had passed himself off for a Russian."

De Brack depicts in the following words the able way in which, in 1809, Captain Curély, then aide-de-camp to General Colbert, reconnoitred the movements of the Austrian army, which was retiring before the French army of Italy.

"At the head of 100 horsemen he got to a point ten leagues beyond his division, turned the Austrian army, and kept so secretly in its rear, that in the evening he found himself concealed in a

wood three-quarters of a league behind the village which the head-quarters staff of the archduke had occupied. A wide dusty plain separated him from the village. Two or three Hungarian marauders, whom he captured, gave him some useful information. A numerous herd of cattle returning from the fields, and proceeding in the direction of the village, passed by his ambuscade; he laid hold of the drovers, and kept the herd in the wood until darkness had well set in; then putting it again in motion, and placing in the midst of it his horsemen on foot, leading their horses by the bridle, he thus proceeded towards the village under cover of the thick cloud of dust which was raised by the animals.

"Night, the dust, the lassitude of the enemy, and the little uneasiness the Austrians felt, owing to the direction from which the herd was coming, favoured Curély's plans so well, that he penetrated as far as the square of the village, where, with his own hand, he blew out the brains of one of the sentries of the archduke general-in-chief. At this signal, his troopers got on horseback, cut about for some minutes with their swords, and profiting by the astonishment and bewilderment of the enemy, quitted the village, and on the following morning rejoined Colbert's brigade, without having lost a single man or a single horse. The position of the archduke's headquarters staff being thus positively ascertained, afforded unquestionable

indications of that of our army of Italy, with which we fell in two days later, and as the advanced guard of which we fought at Kuraszo, at Papa, and at Raab."

A bold officer can make up for the disparity in numbers by the suddenness of his attack. The following instance is taken from a report by General Marmont, dated the 7th of November, 1805: "I sent on a reconnaissance Captain Testot-Ferry, one of my aides-de-camp, a good soldier and a very eminent military man, with 200 horsemen. Informed by some peasants of the nearness of an Austrian battalion, he determined to view it, and advanced with only 120 troopers. Having approached near the locality in which he had been told lay the camp of this battalion, unaccompanied, he crossed a wood to observe without being discovered, and saw that the battalion was defenceless, having posted no piquets. He forthwith returned to his detachment, hurled himself on the camp, and captured the entire battalion."

On the 2nd of July, 1866, the Prussian headquarters, then at Gitschin, were in doubt as to the position Marshal Bénédek would select for the concentration of his army; the general opinion was that it would be on the left bank of the Elbe. Prince Frederick Charles quitted Gitschin about noon, with the intention of giving a full day's rest to his troops in the positions they then occupied, and reached his own headquarters at Kamenitz

about half-past four in the afternoon. There he found several reports, which clearly showed that the Austrian army occupied a position between the Bistritz and the Elbe. This information was obtained by special officers' reconnaissances, and, as their action illustrates so much of what is contained in this work, an account of the same in detail is given in Appendix I. On the knowledge thus acquired Prince Frederick Charles made his dispositions and ordered the 1st Army to occupy during the night certain advanced positions in the direction of the Bistritz. The next day was fought the battle of Sadowa.

In 1870 the Germans pushed their reconnaissances into the enemy's country from the very first days of the war. The following instance is recorded in the German official account:—* “On the other wing a band of some 50 horsemen made a bold raid into French territory over the mountains; half of them were Bavarian Cheveaux Légers under Major v. Egloffstein, the other half Prussian Hussars under Major v. Parry. Through the narrow mountain defiles they ascended the heights southward of Eppenbrunn, and struck the main road from Bitsch to Weissenburg in the neighbourhood of Stürzelbronn. Here they came across some French infantry, who fled to the hills on their approach. The German horsemen continued on their way at a gallop, encountering

* “German Official Account,” part i. p. 116.

a brisk musketry fire from both sides of the road, and dashed to the other side of Stürzelbronn, whence they returned by another mountain path. Only a few horses were wounded."

The French, on the other hand, acted on a wrong principle, for at the opening of the war orders were issued to abstain from making any aggressive reconnaissances, only to observe the Germans and drive back any incursions on their part.

The officer detailed to conduct a reconnaissance is bound to leave no stone unturned in acquiring an absolute certainty on the information he is instructed to gather. As very weighty measures will be taken on the statement he furnishes, the general may be misled into adopting an erroneous alternative which will defeat the object he has in view. The following instance is given as an example. In the year 218 B.C. Publius Cornelius Scipio, one of the Roman consuls, was sent to Spain to hinder Hannibal's egress from that country. On anchoring at the mouths of the Rhone, Scipio learned that the Carthaginian army, having crossed the Pyrenees, had already reached the Rhone. To test the accuracy of this report, he sent 300 chosen horsemen, with some Gaulish auxiliaries, to reconnoitre. Hannibal, on his side, informed of the arrival of the Roman fleet, sent 500 light cavalry to watch and report. The two reconnoitring parties met in the neighbourhood of Védènes; the

Carthaginians were defeated and pursued close up to their camp. Hannibal's army, with the exception of its elephants, had crossed to the left bank; but the leader of the Roman cavalry, mistaking these, and a small body of infantry left on the right bank for their protection, for the whole Carthaginian army, returned to Scipio and reported that Hannibal was still encamped on the right bank. On this information the consul disembarked his troops and marched up the left bank of the Rhone, hoping to surprise the enemy in the act of crossing. Great was his mortification when, on reaching the ground which the Carthaginian troops had occupied, he learnt that they had quitted it three days before.

By studying a map and other materials in possession, an officer can set off on a reconnaissance having acquired a certain useful familiarity with a given tract of country. If his mission consists in reconnoitring a hostile position, he should search for an intelligent individual to act as a guide; a person who abides near the ground to be reconnoitred will always be in a position to indicate the best points of view, and to afford information on many desired particulars. The reconnoitring officer will seldom be able to approach sufficiently near to scrutinize the position with the necessary thoroughness, and must rely on his telescope. From long practice signallers can use their telescopes with wonderful skill in watching a large extent of country, and with a powerful one it becomes easy

to ascertain from a distance the most salient features of a position, its natural and artificial obstacles, the paths which lead to it, and many other useful particulars.

Not the least difficulty which a reconnoitring officer will experience is to form a just conception of the actual strength of the enemy's forces. Napoleon remarked on this point, "The most experienced soldiers on the day of battle have difficulty in estimating the number of men of which the enemy's army consists, and, in general, our natural instinct leads us to judge the enemy that one sees more numerous than he is actually."

Malherbe, writing to Montchretien on the difficulty of ascertaining the enemy's numbers, observes: "We were sometimes told that he had 2000 men, sometimes only 800, every one endeavouring to number them as prompted by fear or by desire. A spy was sent from the city, who reported that there might be 150." This case shows how carefully an officer should abstain from accepting vague reports, and how necessary it is always to test the accuracy of all information relative to the enemy's strength before placing any reliance on it.

Towards the end of October, 1870, most exaggerated accounts prevailed as to the number of German troops that occupied Orleans; it was generally computed that the town held not less than 60,000 men. On the 9th of November the Tours

government sent a despatch to General d'Aurelle, in which it was stated that a person who had crossed the city on the previous day had found but 15,000 men there.

The difficulty of estimating the enemy's numbers has considerably increased now that so much care is taken in concealing the troops from view. Any information given by the inhabitants on this particular point must always be accepted with caution, owing to their well-known tendency to exaggerate numbers; what can be gathered from prisoners or from spies will be more reliable.

One of the first requirements for an officer sent on reconnaissance duty is a swift horse in good condition. A bold horseman can pass anywhere as long as he wants to do so; his horse is his fortune, and he should nurse it carefully until the hour comes when he will have to trust to its endurance and speed. As an example, we quote in Napier's own words a daring deed performed by Colonel Waters in the Peninsula.* "Waters, who had been taken near Belmonte during the retreat, rejoined the army. He had refused his parole, and when carried to Cuidad Rodrigo, rashly consulted a Spaniard, in whose house he was lodged, about escaping; the man betrayed counsel, but his servant, detesting the treachery, secretly offered his own aid. Waters told him to get the rowels of his spurs sharpened, nothing more, for his design was one

* Napier's "Peninsula War," book xii. chap. v.

of open daring. He was placed under the guard of four *gens d'armes*, and when near Salamanca, the chief, who rode the only good horse of the party, alighted for a moment, whereupon Waters gave the spur to his own mare, a celebrated animal, and galloped off! * It was an act of incredible resolution and hardihood, for he was on a wide plain, and before him and for miles behind him the road was covered with the French columns; his hat fell off, and, thus marked, he rode along the flank of the troops; some encouraged, others fired at him, and the *gens d'armes*, sword in hand, were always close at his heels. Suddenly he broke at full speed between two columns, gained a wooded hollow, and having baffled his pursuers, evaded the rear of the enemy's army, and the third day reached headquarters, where Lord Wellington, knowing his resolute, subtle character, had caused his baggage to be brought, observing that he would not be long absent!"

A good mount, after all, is only a means to an end, for an officer sent to reconnoitre should have an exceptional *coup d'oeil*, a thorough knowledge

* Merino, one of the insurgent chiefs during the civil war in Spain in 1833, 34, was always mounted on very fast and sure-footed horses. Always on the watch, incessantly pursued, ready to attack or to fly, obliged to cover considerable distances, either to pursue his enemies or to escape from them; a man, in short, whose success and life depended on the pace and excellence of his mounts, he paid the greatest attention to the selection of his horses.

of ground and map-reading, vigour, boldness, and judgment. Often his wit will help him more than anything else in getting information. Napier * relates how positive information of the capitulation of Madrid was acquired from the French despatches, but not till ten days after that event had occurred. No money or patriotism had any effect in inducing the Spaniards to bring in intelligence regarding the enemy's situation. A French officer bearing a despatch from Berthier to Soult, rode unmolested by post without an escort. At Valdestillos his abusive language to the postmaster led to a tumult, in which he lost his life. Shortly after, Captain Waters, an officer sent to gain intelligence, entered the town, heard of the murder, and for the sum of twenty dollars purchased the despatch.

Cavalry raids, though generally effected with the purpose of spreading dismay on the enemy's lines of communication, and of inflicting on him serious losses by damaging railways and telegraphs, by destroying magazines and stores, by capturing convoys, surprising couriers, and laying towns under contribution, have frequently for object the acquisition of particular information. When General Lee was appointed commander-in-chief of the army of Virginia, desiring to gain an accurate idea of the position occupied by MacClellan, he directed General Stuart—who commanded his cavalry—to effect a reconnaissance. Stuart, having gathered together

* Napier's "Peninsula War," book iv. chap. iv.

1200 good men, and two horse artillery guns, quitted Richmond on the 12th of June, 1862. * In this raid he not only destroyed much of the enemy's materials, but, what was of far greater value, he brought back information which convinced Lee that MacClellan's right could be easily turned. An account of Stuart's operations is given in Appendix II.

On the 22nd of August of the same year, at the head of 1000 cavalry, Stuart waded the Rappahannock and effected another raid in rear of Pope's headquarters, then at Catlett Station, on the Orange and Alexandria railroad. This raid proved very disastrous to the Federal army, for all the official and private papers of the Federal commander having fallen into Stuart's hands, from the information which they contained were directed the operations which culminated in Pope's defeat at Manassas.

On the 10th of October, 1862, Stuart crossed the Potomac with 1800 horsemen, and rode round the rear of MacClellan's army, covering a distance of 150 miles in three days.

The daring raids made by both the Confederate and Federals, which formed such a conspicuous feature of the Secession war, were nothing absolutely new; they were only an application on a large scale of partisan warfare, of which many instances can be found in the annals of European contests. Stuart made his reconnaissances with great ability, and gained information with incredible accuracy.

In their raids the Confederates were singularly aided by the unity of language, by their knowledge of the country—of a country in which they had a large number of friends well disposed and able to assist them—and by the rawness of the troops opposed to them. In European wars the difference of language and customs, the hostility of the population, and the regular organization of the armies would certainly offer serious obstacles to operations of this nature. Some writers express themselves against such raids, and contend that, being conducted by one arm alone, they are liable to be checked by the armed population. When the cavalry is provided with a long-carrying rifle, and has been well trained to act on foot, it will on many occasions be well able to act alone, and may convey an impression of being supported by infantry.

As in a campaign there may frequently occur cases in which it becomes desirable to employ a body of cavalry to effect a reconnaissance of a large tract of territory or to damage the enemy, it may be as well to examine briefly the principles which offer the best prospects of success in operations of this description.

Cavalry raids are bold and rapid incursions made round the flanks and on the rear of the opposing army; they have a valuable moral effect, for their sudden appearance harasses and disconcerts the enemy. To inflict damage and to obtain useful information is their object; fighting

is only an accident, which should, if possible, be avoided.

A sudden irruption has always a fair chance of success; its chief element is rapidity. The success of a raid depends much more on ability than on numbers; a small picked body of well-mounted men, judiciously led, will effect as much as a larger body, whose movements cannot but be slower, and who would naturally experience greater difficulties in the matters of concealment and subsistence.

The duration of the operation being short, nothing beyond the strictest necessary must be carried. When any destructions, tapping the enemy's wires, etc., are intended, a few mounted sappers should be detailed to form part of the force.

A raid must be conducted with a very clear idea of what it is intended to effect. It should be diligently prepared; it is necessary to study all the possible ways for arriving at the desired end, to foresee what obstacles the raiders may have to overcome, and the manner in which they can be avoided. These expeditions are always accompanied by a certain risk, and, as it may be necessary at any moment to make a rapid push forward or backward or a lengthy detour, the pace must be moderate, the horses being kept in a favourable condition for the time of need. A moderate pace, by causing the animals less fatigue, renders longer

marches possible, and in the end will yield better results than simply ill-judged swiftness.

Before getting involved in a serious engagement, and venturing blindly in the midst of the enemy's forces, it is a matter of the highest consequence to study the ground and get to know as much as possible of its features, of the avenues leading to the most prominent positions, and of the natural or artificial obstacles which will have to be encountered. An officer sent to make a reconnaissance of this sort, notwithstanding that he will receive special instructions on the main points to which he will have to direct his attention, must, on the whole, be guided by his own tactical knowledge.

The general commanding may himself undertake a reconnaissance, with the object of studying the enemy's position, so as to make the most suitable dispositions for an attack. To make personal observations of the enemy's dispositions and to endeavour to fathom his intentions, as Napoleon did from his outposts the day before the battle of Austerlitz, is now a matter of considerable difficulty, owing to the long range of modern weapons, to the pains taken in concealing the location of the troops, and to the greater care with which armies in our days guard themselves. What Napoleon, accompanied by a few officers and an escort of 20 chasseurs of the guard, was able to do on the eve of Austerlitz, that is, to

reconnoitre between the advanced posts of the two armies, was due to a sort of customary practice of letting the exploration drop with daylight.

When his own observations and the information gathered by staff or cavalry officers or obtained from other sources have proved insufficient, recourse has often been had to offensive reconnaissances. This is an evident proof of our impotence to obtain information by any other means than by a sacrifice of valuable lives. It being impossible to creep stealthily in the midst of the adversary, we resort to force, drive back his outposts, tear asunder his screen, and thus strive to ascertain what lies concealed behind it.

Offensive reconnaissances, as the prelude to a battle, are made by the express orders of the commander of the army, with the object of compelling the adversary to display his strength, to get to know the number of his forces, the partition of his troops, and other dispositions. The arrangements are more or less the same as would be made to fight a regular battle, but, partaking of the nature of a false attack, the intention is to break off the engagement as soon as the object of the reconnaissance has been attained. Actions of this kind being undertaken to secure as much information as possible, as many staff officers as can be spared are detailed to scrutinize the enemy's position, and to acquire as much familiarity with it and with the ground leading to it as practicable. The action

of the infantry in such an operation shows more than anything else its scope, for it is laid down that the infantry should render themselves masters of such positions as are most prominent and offer the best field for observation.

The rule given is to engage the enemy at a late hour in the afternoon, so as to put an end to the engagement when darkness sets in. Notwithstanding the advantages which are expected to be obtained from such an operation, the attacking force always withdraws, and carries with it an admission of defeat. We must consider what a serious effect the difficulty of executing an orderly retreat at night in a strange country, and the depression caused by the apparent ill-success of the operation, may have on the *morale* of the troops.

These offensive reconnaissances are generally censured, on the grounds that they entail heavy losses, and that the very fact of the attack being abandoned imparts a feeling of confidence to the enemy. There is also a prospect that the adversary—who well knows that such reconnaissances are usually the prelude to a serious attack—may during the night make considerable alterations in his dispositions, and, possibly, bring up reinforcements. It is held that, when the aggressor is prepared to profit at once of any damaging disclosure of the enemy's weakness, the reconnaissance may be turned into a regular action and pushed forward with vigour. The possibility of being able to do

so should always be taken into account; nevertheless, as the reconnaissance only commences late in the day, there is little prospect of inflicting a serious defeat on the enemy.

In the battle of Wörth we have a good example of the difficulty experienced in breaking off an engagement. "As the Crown Prince did not wish to give battle until his forces were concentrated, he forthwith sent word to General v. Kirchbach not to continue the struggle, and to avoid everything which might induce a fresh one." As the German Official Account explains,* to break off the action was impossible, for it would have entailed great loss on the advanced guard, and any "rearward movements of the corps on either flank would give the enemy undisputed right to claim a material victory, which, were it ever so unimportant, could not be disregarded in its moral bearing."

It is for these reasons that military writers consider these offensive reconnaissances to be useless if not dangerous. On all grounds we should rigidly abstain from engaging an action unless we have the full intention of prosecuting it to the end.

When the general opinion has expressed itself strongly against a direct attack, and is almost unanimous in assigning to it very little prospect of success, the offensive reconnaissance loses much of its value. The efforts in battle will be directed on one of the enemy's flanks, and a strong reconnaissance

* "German Official Account," part i. p. 163.

in that neighbourhood would only indicate the real direction of the attack. To make any serious demonstration on that side is the last thing that should be done, for it would be simply playing into the adversary's hand.

Offensive reconnaissances made by a detachment of all arms are dangerous operations, for, should the adversary discover the weakness of the attacking party and its distance from the supports, he may be encouraged to act with boldness and crush it by superior numbers. It is hardly likely that the appearance of a small force acting on a narrow front will beguile the enemy to display his strength. There is in reality nothing to be gained by these smaller offensive reconnaissances, for it is rarely possible to gain through their employment a sufficient knowledge of the enemy's power.

An army that has a well-organized intelligence service, an active and enterprising body of cavalry, and staff officers who possess a thorough knowledge of the art of war, will have such constant information of all that regards the enemy, that it will rarely have to resort to the doubtful expedient of an offensive reconnaissance.

Without having to undertake an offensive reconnaissance the enemy's position may be overlooked by an officer in a balloon, and the distribution of his troops ascertained and transmitted to the commander-in-chief. Balloons can be usefully employed when it is a great object to ascertain what

the enemy is doing. By this means we raise an officer to a considerable altitude, from which point of vantage he can get a clear view of the enemy's position. Of course we here refer only to captive balloons, in which case there is seldom any difficulty in keeping up communication.

During the battle of Fleurus, 26th of June, 1794, several ascensions were made, which yielded valuable information. It is related that at the battle of Chickahominy, every movement of the Confederate army was distinctly visible in Professor Lowe's balloon, and instantaneously reported. The country round Richmond being thickly wooded was most unfavourable for balloon reconnaissance, still many valuable details were discovered. The French, during the siege of Paris, frequently reconnoitred the German positions from a balloon.

A strong wind is a great impediment to the ascension of captive balloons, and often militates against their employment at the most desirable moment. At Suakin, in 1885, the prevalence of high winds curtailed the services of the balloon detachment.

To be of real use a reconnoitring balloon should carry several men in the car, for one man alone is not sufficient to observe all that is passing and send the messages below, when the enemy's troops are moving in various directions.

Since balloon detachments have been properly organized they have not been tested in war, and only an experienced specialist can speak with a

certain authority on this subject. The following observations made by Lieutenant H. B. Jones, R.E., in a lecture on military ballooning,* are very interesting, and illustrate the difficulties which attend reconnoitring from a balloon :—

“ It is a common error for people to fall into to assume that, because the balloon is a good place to reconnoitre from, that therefore to send good reports from a balloon is a very easy matter, and that any staff officer can go up in a balloon and at once be able to report what he sees to the general. I maintain, on the contrary, that nothing requires greater practice. Except on very calm days, there is always a certain amount of movement which is very trying to most untrained men, and affects them either in the head or the stomach. Many a man, who will be perfectly at home in the balloon on a calm day, is rendered more or less incapable of sending in a good report, if there is any wind, by a feeling closely allied to sea-sickness. This motion of the balloon has also the effect of rendering it no easy matter to keep a field-glass fixed on any particular object, and as the balloon should be at the least two miles away from an enemy, this is of great consequence. On making a first ascent, one of the remarks most usually made is, ‘Why, the country looks just like a map,’ and this is perfectly true; but, unfortunately, nature has omitted to mark the contours in red. As the balloon ascends, the slopes

* *Royal United Service Institution Journal*, No. 169, p. 261.

gradually flatten out, and the country looks like one flat plain. The result of this is that the observer is apt to fall into the mistake of assuming that movements which are plainly seen to him are also seen by his general, and that a report of them is valueless and a waste of time, whereas the movement may be totally hidden by a fold in the ground. Or from the same cause, except to a practised observer, many very important movements lose all their significance, or may be interpreted in a totally wrong way.

“To the untrained eye it is very hard to estimate numbers correctly; a red patch two miles off is easily seen, but unless the observer can give an estimate of the number of companies or battalions forming that red patch, the information obtained is of very little value; he must not only be able to approximate to the numbers, but also give the constitution of the force, whether cavalry, artillery, or infantry, or all three. Thinking it over calmly, it seems ridiculous that any one should take a company for a battalion, or transport wagons for field guns; but, speaking from sad experience, I know that both mistakes can be easily made. The observer must be fully acquainted with the formations and tactics of all arms of the service, to avoid sending useless and misleading reports. Again, with our small balloons, it is frequently necessary in windy weather to only send up one man at a time, in order to give the balloon greater buoyancy

to rise through the wind; the observer must, therefore, have some practical knowledge of the balloon in case of accident. Nothing sounds easier than to say, 'If you break away, pull your valve-line to come down, or throw out ballast if you want to rise;' but regulating this wants a considerable amount of practice. There is something very strange in floating quietly or being pitched about in space when alone for the first time, and to an inexperienced man the sudden jar caused by the balloon wagon going into a deep rut, or turning a corner too sharply, or from many other causes, may shake his nerves at a time when he particularly requires to be cool and collected. I have said that as the balloon ascends the country flattens out, but in parts where the hills are very steep and the valleys deep there are bound to be bits of hidden ground which the balloon cannot search, and in summer troops may lie concealed in woods for some time without their presence being noticed before they open fire; the only thing to do is to carefully watch these places for the first sign of any movement."

* * * * *

"On active service the troops, when nearly in contact, have always to be on the alert, and it is at this period that the balloon will be specially valuable. A balloon is nothing but a scout, a means of obtaining information which may assist the general in forming his plans, and in every

case in which the balloon has been utilized in this way the criticisms have been favourable. When a general action commences, events follow each other in such rapid sequence that it is extremely difficult to send the information from the balloon in time for it to be of use, unless very large forces are engaged. Turning movements can and ought to be seen in time to be met; but until I am convinced to the contrary by facts, I maintain that the great use of balloons in the field is in supplying information as to the disposition of the enemy's force before the engagement commences, and giving details as to the position of his camp."

CHAPTER IX.

INDICATIONS.

THE great similarity in the organization of regular armies, in the methods of war, in all that relates to watching, marching, encamping, and the maintenance of troops in the field, makes it impossible to conceal completely from the enemy our dispositions and intentions. There are, consequently, at all periods of a campaign, certain indications from which an officer who has a fair knowledge of his profession can deduct pretty accurate inferences.

To draw proper deductions from certain unmistakable indications it is not absolutely necessary to be in the near neighbourhood of the enemy, for even at a distance from him it is often possible to forecast coming events. Let us assume, by way of example, that an officer, who has been sent to acquire information, comes to hear that provisions and forage to a considerable amount have been accumulated in a certain district; he would naturally be led by this circumstance to

infer that the enemy intends to operate in that direction. Should he come to learn that a large quantity of rolling stock has been brought from afar and gathered at a certain point, he would not be far wrong in presuming that a large movement of troops is in contemplation. In a like manner, if it comes to his knowledge that a vast amount of materials, piles, timber, etc., have been collected on the banks of an unbridged river deficient in boats, this might lead him to believe that it is done to provide means for the crossing of the enemy's forces. There is nothing absolutely positive in all this, nevertheless these circumstances tend to make the enemy's purpose more than a vague probability.

Sir E. Hamley gives an illustration of this from an instance which occurred in the Peninsula war.* "When Wellington, before Badajos, heard that Marmont was approaching Ciudad Rodrigo, just captured from the French, he sent an officer to watch the movement. From a well-concealed point of observation the envoy marked the march of the French; and, entering a town they had just quitted, found they had left the greater part of their scaling-ladders behind. As their siege train had been captured at Rodrigo, Wellington, who might else have been drawn northward for the defence of his acquisition, had no fear for the safety of the fortress, and remained to prosecute his immediate design."

* "The Operations of War," p. 455.

Any well-founded rumours of the withdrawal of the heavy materials and impedimenta are pretty sure signs that a retreat is in contemplation. When a retreat is accompanied by the demolition of important bridges, by the burning of boats, by the destruction of stores and of the local resources, it may reasonably be assumed that considerable importance is attached to retard as much as possible the progress of the adversary, and that the retreat will be a long one.

The bearing of the population is always a fair reflection of the actual state of affairs. Any haughty disdain, any excitement of the people, may with good reason be attributed to their general confidence in the power of their army, whilst it often is a sure indication of the approach of the enemy. Their dejection and too ready submission, on the other hand, may be taken as a proof of a want of confidence in their defenders, and of their hopelessness in the ultimate success of their cause.

When Gambetta's extraordinary activity placed in a few weeks an army of 200,000 men on the Loire, the population looked on the 2nd German Army hurrying up from Metz as marching to certain defeat. Such was the confidence the people felt in a change of fortune, that citizens and peasants rushed to arms and guarded their homes. Up to that period the German troops had been little molested in their march across France, and the sudden change in the attitude of the population

showed evident signs of an army of reserve. The Germans, finding the houses closed, were compelled to force the doors open to obtain a shelter, and their soldiers were frequently attacked by the occupants. As a rule, in the case of an invasion, the population only rushes to arms when it finds itself backed by a friendly force, to which it attributes indisputed superiority over the enemy.

To draw valuable conclusions from any of these circumstances, on the general aspect of affairs, is the business of the general commanding and of his staff officers, for it demands a very fair knowledge of the respective condition of the two armies, which is beyond the ken of the mass of the officers. There are, however, other indications with which the junior officers and soldiers must be fairly acquainted, to be in a position to perform their own duty with due efficiency.

A constant habit of observation alone can make an individual familiar with these signs. This habit requires to be cultivated, and opportunities will not be wanting in field days and manœuvres for instructing the soldier on this point, and for teaching him how to draw correct conclusions from certain notable indications which will present themselves to him on service.

Much information can be picked up by watching attentively the march of a column of troops; from this it becomes possible to ascertain the composition, distribution and approximate strength of the

enemy's forces, and the direction in which they are moving. From the particular aspect of the dust, an observer will be able to distinguish the different arms, even at a considerable distance. That raised by infantry on the march is low and dense; that lifted by cavalry is higher, the upper portion being thinner and rapidly disappearing; whilst the artillery and army trains raise clouds of dense dust, unequal in height and disconnected.

Large bodies of troops often march through the fields by the sides of the roads; crossing the country in this mode they raise less dust than when marching on the public ways. Another method for ascertaining the direction of the march, is to watch the glitter of the arms and metal. If their reflection is very brilliant and the rays are perpendicular, the enemy may be taken to be advancing towards the observer; if, on the other hand, the sparkling is changeable and intermittent, it is a sign that he is receding from him. When the rays are inclined downwards from left to right, or from right to left, the column will be moving towards his right or his left.

Should the enemy's troops be very far distant, and it is desired to decide in which direction they are going, the observer is recommended to take two fixed points in front and on one of the flanks; then, by the successive gradations of the distances which separate the troops from these points, it will be easy for him to ascertain the direction and also the swiftness of the march. By noting the time

occupied by one of the enemy's columns in passing a given spot, it becomes possible to form a pretty fair estimate of its numbers.

In his "Duties of the General Staff," von Schellendorf gives the following as a help in distinguishing the different arms.*

"At 1600 metres† the movements of masses may be discerned ; infantry appearing as dark lines with a glittering edge, and cavalry as a broad, dark line with a serrated edge.

"At 1200 metres, infantry appear as having a serrated edge, and cavalry may be discerned as mounted men.

"At 1000 metres, files may be distinguished and guns counted.

"At 800 metres, the movements of a body of troops in line can be made out.

"At 650 metres, the outline of the upper portion of the infantry soldier or the horse of a cavalry soldier can be distinguished.

"At 500 metres, the head can be distinguished from the headdress ; man and horse are distinctly visible.

"Bright colours may be distinguished at 300 metres.

"Buttons and lace at 160 metres."

Smoke may reveal the direction of a march. This

* "Duties of the General Staff," vol. i. p. 264.

† The length of the metre in English measure is 39·37 inches, nearly.

generally comes from cook-fires, followers' fires, and fires wantonly kindled by the troops marching. If they rise further and further in any one direction during the day, it is almost conclusive that there is some movement in that direction.

Even in those cases in which we are precluded from watching the movements of the enemy, the traces which he leaves on the roads will reveal more than the simple direction of his march. Thus, if we find the ground evenly trodden, we may take it as a sign that the column consisted entirely of infantry; whereas, if there are numerous prints of hoofs and wheel-tracks, we may be sure that cavalry and artillery formed part of it. From the number of these marks it is even possible to form some estimate of the strength of the various arms. When they are fresh, it is an evident sign that the road has been followed by the enemy quite recently. The fields trodden down alongside of a road clearly indicate that cavalry was marching on the flanks of the column, and, by looking at the breadth of the marks left by the horses, we can form an idea of the formation in which it was moving, whether by fours, by sections, or by squadrons.

Though darkness may hide the enemy's march, still the ear will assist by calling attention to certain sounds. The rumbling of carriages, the neighing of horses, the sharp cracking of whips, the barking of dogs, are all indications of a state of movement. All these various sounds are heard at a great

distance on still nights. Previous to the battle of Inkerman, the British sentries on outpost duty constantly heard the sounds of carts going to Sebastopol with provisions for the Russian army. When, in the night between the 4th and 5th of November, the Russian artillery issued from the town to take part in the attack of the British position, no special attention was paid to the rumbling sound of carriages in motion, which was supposed to be nothing beyond the customary transit of arabas with provisions.

Before the battle of Wörth, the German Official Account states, "the rumbling of railway trains, which had been audible in the night, and had continued during the morning, led to the inference that the enemy was receiving constant reinforcements." *

When a large body of troops is about to move, there is, generally speaking, a certain amount of clamour, striking of pegs, shouting at the baggage animals, all of which, in the stillness of the early hours, are heard a long distance away.

We all know how easily one is deceived both with regard to the direction and distance of a conflagration of which we can only see the reflection ; the illusion is more easy, and the errors are greater when we cannot base our conjectures on what we can see, but only on sounds which reach our ears from afar. On the day of Sadowa the Prussian headquarters staff heard heavy firing on their left,

* "German Official Account," vol. i. p. 163.

but, not having a clear view of the whole of the battle-field, were not able to make out if this announced the arrival of the Crown Prince's army or was simply Fransecky's division, which, in its forward movement, was drawing on itself the enemy's fire.

On a still day sounds may be heard at the following distances: human voice at 150 yards, military bands at 5200 yards, rifle at 5300 yards, cannon at 35,000 yards. The velocity of sound at 32° Fahr. is $363\frac{1}{3}$ yards per second. For every degree Fahrenheit added to the temperature, its velocity is augmented by $1\frac{1}{9}$ feet, and a very strong wind will increase the velocity about $\frac{1}{20}$ of the whole. At a summer temperature it may be taken at 365 yards per second. By counting the number of seconds between the flash and the report of a gun, the distance of a battery can be measured with tolerable accuracy.

It is very important at all times not to lose the touch of the enemy once it has been found. Night is always very favourable for him, for, as in a certain way it puts an end to our observation, it prevents our knowing the exact locality he occupies. In dark nights, however, the glare of large camps or bivouacs is visible at a distance of several miles, and by daylight, above all towards evening, the smoke from fires can be seen almost as far from an elevated position. Not only will this reveal the presence of the enemy, but the number of fires

will allow an approximate estimate to be made of his strength.

It is held that when we know the description of camp-kettle used by the enemy, and the number of men allotted to each of his messes, we can form an idea of his strength by counting the number of his fires. In some cases something approximate may be learnt in this way, but on the whole this guide is too uncertain.

An unusually large number and very bright fires may denote the presence of reinforcements; fires may, nevertheless, be kindled to deceive us. The Russians at Witebsk, on the 27th of July, 1812, quitted their bivouacs at night and left their fires lighted. Till morning no one on the French side had any suspicion that the enemy had decamped. When such a ruse is employed, the fires are periodically refilled, and at certain times give a bright light which should draw attention. If they grow dull all along the line, and brighten simultaneously, there are grounds for suspicion. It is, consequently, prudent to keep a careful watch on the enemy's fires, and, if they are in fair view, to study them one by one with the field-glasses, noting if any soldiers are moving round them.

Smoke should be carefully looked for after rain, for troops that have got wet and are chilly will then light fires. That observed early in the morning almost always rests over or near the camps from which it has risen. If it is thought

that the enemy are about to evacuate any position, it is well to look for signs of burning stores, provisions, etc. Stores of various kinds burn with different coloured smoke. When the smokes visible are of dissimilar colours, there is more than a probability that they rise from the combustion of stores or provisions.

When a retreat is in contemplation, the enemy will not abstain from destroying any railway lines of supply which are situated in his immediate rear. To do this effectively, not only must the permanent way be ripped up, but the sleepers must be stacked and burnt. The destruction of a railway line may be surmised if lines of smoke, rising at several points for some miles, are seen. The smoke from burning sleepers generally appears in wreaths of white and black; the white arising from the steam of the moistened wood, the black from the seasoned timber.

In certain countries kites and other scavenger birds always fly above the camps, ready to pounce on any offal. When seen in a large number they may give some indication of the situation of a camp.

By examining attentively the remains of the enemy's camp-fires, it is possible to form an idea of his numbers; by the amount of cinders we can estimate how long his troops have occupied the ground, and by their condition how long it is since they have left it. Cooking-places carelessly

constructed, and the camps laid out with an absence of regularity, denote hurry and want of confidence. The litter will reveal what artillery, cavalry, and trains were with the army; the uniforms of the dead and wounded will show of what corps the enemy's column was composed.

The uniforms and boots of prisoners and deserters should always be noticed, for they will be a good criterion of the state of the enemy's resources.

In a retreat the adversary always leaves behind sure indications of the discipline and *morale* of his troops. Articles of clothing, equipment, harness, etc., left on the ground, dead horses unburied, corpses hastily interred, show that fatigue and discouragement were prevalent. A number of sick and wounded dropped on the road indicate a deficiency of means of transport.

The emaciated appearance of the prisoners, the poor condition of the horses, the current reports of pillaging on a large scale, the evident signs of wanton destruction, the too apparent relief of the inhabitants on the departure of the enemy's troops, are all clear evidence of a great scarcity of provisions.

A considerable amount of information can always be gathered by interpreting these many indications correctly, and an observant and intelligent individual will deduct something worth knowing even out of what may appear very trifling circumstances.

CHAPTER X.

SPIES.

THE information which cavalry scouts, staff officers, and patrols are able to obtain is at all times very valuable; nevertheless, on the whole, it is insufficient, by reason of the great difficulties experienced in penetrating far enough within the enemy's lines. By employing these means it is not possible to acquire any knowledge of the adversary much beyond his outposts. True enough that the reports constantly coming in will afford many indications of the condition he is in; but information of his real strength, of what is going on in his camps, on his flanks and rear, can only be obtained from other sources.

All information from what can be actually seen of the enemy seldom extends further than what exists on the surface; the bulk of his army lies well in rear of it, and we can seldom reach where its life and its brains are. When we try to penetrate there, to cast an eye at the core of the adversary's army, we are met by all the impediments inherent to a

state of war. The surface may reveal the presence of the enemy's troops, but what occurs in the centre of his army is a closed book. Nevertheless, it is from this that we gain the most important news, news which enable us to cast aside all hypotheses and questionable deductions, and which, serving to confirm what has come to hand from other sources, lead us to an almost absolute certainty. A few adventurous individuals alone can reach the fountain-head of information, and then only by stealth.

The many measures the adversary takes to keep all strangers from approaching or crossing his outposts, the difficulty of stealing very close to him without being observed, the chances of falling in with one of his many patrols, the wearing of a distinctive uniform, one and all militate against our being able to possess ourselves of a certain kind of information by any of the ordinary means. This being so, we are compelled to have recourse to spies, informers, and secret agents.

There can be no question that certain information of the highest import can only be acquired through their agency. Without quoting the opinion of many learned military writers on this point, we are bound to admit that experience has at all times very clearly shown that spies are an indispensable source of information in war.

The very term spy conveys to our mind something dishonourable and disloyal. A spy, in the general acceptance of the term, is a low sneak who,

from unworthy motives, dodges the actions of his fellow beings, to turn the knowledge he acquires to his personal account. His underhand dealings inspire us with such horror, that we would blush at the very idea of having to avail ourselves of any information obtained through such an agency.

Spies, nevertheless, have at all periods been employed in war. We read in the Holy Scriptures how the Lord ordered Moses to send men to spy the land of Canaan. And Moses said to them, "Get you up this way to the south, and go up into the mountains; and see the land, what it is; and the people that dwelleth therein, whether they be strong or weak, whether they be few or many; and what the land is that they dwell in, whether it be good or bad; and what cities they be that they dwell in, whether in camps, or in strongholds." *

Frederick the Great, in his *Institutions Militaires*, writes: "In war we alternately assume the hide of the lion and the hide of the fox; artifice succeeds when force would fail. It is, therefore, absolutely necessary to make use of both: it is an additional string to our bow, and, as often force is opposed by force, also often force succumbs to artifice."

Napoleon, who employed espionage on a large scale, and who placed at the head of his secret service very able men, never ceased from impressing on his generals the important advantages which

* Numb. xiii. 17-19.

could be derived by the proper employment of spies. His instructions to Murat, issued from Ludwigsburg in 1805, contain the following passage: "What is of the greatest importance is to acquire news. Send, therefore, agents and spies, and, above all, capture some prisoners."

In war spies are indispensable auxiliaries; and, when we are precluded from obtaining information by any other means, we must discard all question of morality. We must overcome our feelings of repugnance for such an unchivalrous measure, because it is imposed on us by sheer necessity. Necessity knows no laws, and means which we would disdain to use in ordinary life must be employed in the field, simply because we have no other that we can turn to profitable account. Information has been sought through spies in all wars, and we can plead in our favour that the enemy will not scruple to employ them in his behalf.

In the "Private Memoirs of Napoleon Bonaparte," by Mons. de Bourrienne, occurs the following passage, which will illustrate many points to which attention will be called in this chapter.

"The First Consul passed six days at Milan. On the day after our arrival there, a spy, who had served us very well in the first campaign in Italy, was announced. The First Consul remembered him, and ordered him to be shown into his cabinet. 'What! are you here?' he exclaimed. 'So you have not been shot yet!' 'General,' replied the spy,

‘when the war recommenced, I determined to serve the Austrians, because you were far from Europe. I always follow my fortune ; but the truth is, I am tired of the trade. I wish to have done with it, and to get enough to enable me to retire. I have been sent to your lines by General Melas, and I can render you an important service. I will give an exact account of the force and the position of all the enemy’s corps, and the names of their commanders. I can tell you the situation in which Alessandria now is. You know me : I will never deceive you ; but I must carry back some report to my general. You need not care for giving me some true particulars, which I can communicate to him.’ ‘Oh ! as to that,’ resumed the First Consul, ‘the enemy is welcome to know my forces and my position, provided I know his, and he be ignorant of my plans. You shall be satisfied ; but do not deceive me. I will give you a thousand Louis if you serve me well.’ I then wrote down, from the dictation of the spy, the names of the corps, their amount, their position, and the names of the generals commanding them. The First Consul stuck pins in the map to mark his plans on places, respecting which he received information from the spy. We also learned that Alessandria was without provisions, that Melas was far from expecting a siege, that many of his troops were sick, and that he wanted medicines. The information given by this man proved so accurate and useful that, on his return

from Marengo, Bonaparte ordered me to pay him the thousand Louis. The spy afterwards informed him that Melas was delighted with the way in which he had served him in this affair, and had rewarded him handsomely. He assured us that he had bidden farewell to his odious profession. The First Consul regarded this little event as one of the favours of fortune."

By selling themselves to us, spies run terrible risks. Such are the dread consequences that may arise from information gleaned through these men, that there is no other punishment for a spy but instant death. The very punishment inflicted is in itself a proof of the value which is assigned to a spy in war.

An incident is related of Frederick the Great, who, having surprised a suspicious-looking Jew prowling about his camp selling images and patriotic songs, caused all his goods to be burned. To make an example of him and to punish his perfidy, he had him nailed alive in a coffin and buried deep in the ground. The laws of nations, whilst admitting the necessity for making away with a spy, would never countenance any man, whatever his crime might be, to be condemned to such a horrible death. It appears but just that a spy should not be put to death until the evidence of his guilt has been convincingly established, for the spy mania rages very strongly in war. One of our special correspondents has stated that in

one day in 1870, at Metz, seventy-eight persons were arrested on suspicion of being spies.

The very low estimate in which we hold spies should always make us distrustful of them. An individual who is ready to injure his own compatriots will not scruple to betray the enemy of his country, if the terms offered him are high enough. Some spies, nevertheless, may be actuated by more worthy motives than simple filthy lucre; they may be animated by a desire to do something in the defence of their country, to see it freed from foreign oppression, or to secure the triumph of their party or of their religious opinions. In cases in which their aid is the outcome of patriotism, or other noble motives, greater trust can be placed in them. Occasionally some may undertake the work when labouring under an injustice or some grievous wrong; hatred and a desire for vengeance are great inducements for spying.

A spy betrays his own country, and as a traitor deserves death; the laws on this point have already been well defined. When the feelings of the people are, however, in favour of an invader who has come to deliver them from foreign oppression, there is no such betrayal, and a spy, if caught, is not punished for treason, but as a deterrent to others. Persons who are avowed enemies, and who, attired in a distinctive dress, elude the adversary's vigilance and penetrate into his camp, or thrust themselves between his columns to gain information,

are not spies but daring men, who are ready to incur serious personal risks to confer some signal service on their army.

An individual in no way belonging to the army found within our lines, dressed in one of our uniforms, would presumably be nothing but a spy. An officer or soldier from the hostile side found in civilian attire would likewise be arrested as a spy, but not so if dressed in the uniform of his own army, when he would come under the designation of a prisoner or of a deserter. In 1780, Major John André, one of Clinton's aides-de-camp, was sent to bargain with Benedict Arnold—one of the American generals—for the surrender to the British commander of the fort of West Point. In returning down the Hudson from his interview with Arnold, he was made prisoner, and being found within the American lines in disguise, was tried and hanged as a spy. In the same war, after Washington had retired from Long Island, Captain Nathan-Hale returned there under disguise, and prowled amongst the English troops, gathering information on their numbers and projects. He was captured just when, having attained his object, he was about to rejoin Washington; he was tried and shot as a spy.*

Napier † relates how after the Battle of Fuentes,

* It is said that whilst Nathan-Hale was denied the comforts of religion, André, up to the last, was treated with the respect due to his rank.

† Napier's "Peninsula War," book xii. ch. v.

Onoro a French soldier, Tillet by name, though attired in his uniform, with extraordinary courage and presence of mind contrived to penetrate into Almeida with orders for General Brennier to evacuate the fortress. Tillet scorned the idea of assuming a disguise, to act the part of a common spy.

Without being a salaried spy, an individual actuated by patriotism or by hatred of the enemy may render valuable assistance by taking news into a fortress, by carrying it out, by indicating a practicable road, etc. Before the battle of Jena a Saxon priest pointed out to Napoleon a little path by following which his infantry could gain the Landgrafenberg.* The Saxons detested the Prussians, and this priest regarded them as enemies of his country and of his sovereign. If caught, the poor man would no doubt have shared the fate of an ordinary spy ; but that he certainly was not, for he was not actuated by any sordid desire of reaping a tangible reward for what he was doing.

An individual may be employed as a medium for placing in communication two portions of an army separated by the enemy. Cases of this kind generally occur in a siege or blockade, when it may become desirable, or even necessary, to send an emissary through the enemy's lines with a despatch describing the actual conditions of the besieged, to indicate the best route to be followed by the

* "Baron Marbot's Memoirs," vol. i. p. 224.

relieving force, to concert a combined action, or to raise the spirit of the besieged by the promise of speedy succour. An instance of this occurred in 1857, as Sir Colin Campbell was advancing from Cawnpore to the relief of Lucknow. Brigadier-General Inglis needed a daring man to reach the commander-in-chief's headquarters with a despatch containing information as to the most desirable route the relieving troops should follow. A Mr. Cavenagh—an uncovenanted officer of the East India Company—volunteered for this dangerous and important mission; he assumed the native garb, and after having several times narrowly escaped being captured he accomplished it with success.

To gather information in the very centre of the enemy's army can seldom be secured by any other means than by employing agents bought with our gold. "All is fair in love and war," is a very old saying; here is a case, not of fairness, but of absolute necessity, for it is utterly impossible for any one but a spy to cross the enemy's outposts with impunity, and to reside without incurring suspicion in the midst of our opponents. We employ many terrible weapons in war, we immolate without a thought the lives of many brave and gifted soldiers, and, if we must steel our hearts against these cruel sacrifices, we must also close our eyes to the strict morality of some of the means we employ.

Not every informant can be regarded as a

competent spy ; the ordinary informant may be commissioned to ascertain certain special points or facts which have been indicated to him, but a proper spy must add to cunning a large measure of intelligence and power of observation. Without these it will be impossible for him to render that accurate account of the enemy's numbers, of the composition of his troops, of the most prominent points of the position he occupies, of all indications of movement, of his habits and means which will be expected from him. He must further be gifted with a very retentive memory, for he would run very serious risks were he to commit to paper the results of his observations.

A spy must know the country so well as to be able to pass rapidly from one army to the other, for the value of the information he brings increases with the rapidity with which he can convey it. By travelling at night he can elude observation, by taking different roads and unfrequented paths he can guard against his repeated passage from one side to the other becoming a subject of remark. He must avoid raising the least suspicion as to his real employment ; his belonging to the country, his accent, his dress, his little national peculiarities all place him above suspicion, and are all points which no individual amongst our combatants, however adroit, could ever sufficiently imitate. The slightest foreign accent would soon draw attention, and once an individual becomes an object of

suspicion, he is lost.* A spy penetrates through the enemy's outposts under cover of his nationality. Dressed in the ordinary clothes of his class, he conceals the fact that he is in the pay of the enemy ; he will nevertheless require a good deal of self-assurance, presence of mind, and ready wit to meet any questions that may be put to him.

In an enemy's country curiosity is a thing which is to be avoided, the skill lies in impressing on the memory those points which strike one as important, without showing that they have been as much as noticed. It is only the unwary spy who, by hanging about when there is no further information to be gained, draws attention on himself.

A serious defect in an informer is the very superficial knowledge he has of military matters ; this has often led to the collapse of well-conceived operations. The uninitiated may overlook some small trifle, or, may not realize how certain obstacles, which an active person may easily surmount, can become very serious hindrances for a large body of men. To better explain this point, let us take the battle of Sedgemoor. Monmouth received from Godfrey—a farmer, who, living near Weston-Zoyland, should have been thoroughly acquainted with the country—full particulars of the Royal army. On this he decided to attack Feversham's forces.

* A German, for example, though he may have resided for many years in France, has a strange manner of pronouncing the *b*, the *p*, and the *v*, which would easily arouse suspicion.

However accurate in other respects Godfrey's information was, he omitted to report the existence of the Bussex Rhine, a broad draining channel which protected the front and left flank of Feversham's position. Monmouth's followers were suddenly checked by this obstruction, and all the advantages of a surprise were lost. This fortunate accident gave the Royal troops time to turn out and get under arms, and their superior training and discipline enabled them to crush in a very brief space of time the raw and badly armed levies opposed to them.

On all occasions in which an army has all the sympathy of the population on its side, the intelligence staff must be very ignorant of their business, and culpably unenterprising, if they are not able to get information regarding the enemy by means of spies. It appears almost incredible that in the Novara campaign (1849) the Sardinian headquarters should not have been apprised of Radetsky's concentration in the direction of Pavia. As the selection of that line was one of the courses open to him, General Ramorino had been purposely located with his division to watch the passage of the Ticino at that point. Not only were the staff unable to fathom the designs of the Austrian commander, but Ramorino allowed himself to be deceived in believing that any attempt made to cross at Pavia was but a feint, the real object being to cross the Po on the Sardinian right. Acting on

this supposition, he quitted his post and left the passage of the Ticino unguarded. Tried by court-martial for treason, he was shot; nothing certainly was adduced in proof of any treasonable intention, but the court could not condone his disobedience of orders and gross neglect.

In 1870 the French experienced the greatest difficulty in finding an individual who inspired confidence to send across the frontier, to observe what was going on, and to keep them informed of the enemy's movements. They had neglected the organization of the espionage service, and found out their error too late.

When contending against a semi-civilized enemy or barbarous tribes, it will not be an easy matter to enlist the services of spies; for all that, it is above all in such cases that we cannot employ the ordinary means for unearthing the enemy's doings. It may, nevertheless, be possible to work on the cupidity of a prisoner, and to beguile him into giving us his co-operation. In such countries the spirit of patriotism—what we understand as the love of our fatherland—is anything but deep-rooted; whilst there is also the chance that a large number of the fighting men have taken up arms under compulsion, and have nothing but hard knocks and severe hardships to gain by the war. A prisoner will arouse little suspicion by returning amongst his comrades with some plausible story of how he evaded our vigilance; whilst there, with

their careless system of outposts and their many rambles in search of food, he will find many opportunities for evasion.

Some writers consider the value of spies to be much overrated, and hold that they are of less worth in obtaining information than the means which armies possess in themselves. Certain relevant information, however, can only be obtained at the enemy's headquarters, and then can only be ferreted out by individuals who from one cause or other have some connection with the people who are employed there.

Spies can be looked upon as the feelers of an army, and when judiciously employed they form a moving line of secret scouts, which help in guiding the movements of the trained explorers.

Duhesme rightly observes: "To direct the espionage with ability it is not a question of throwing money here and there; it requires diligence, continuity, application, and experience." The espionage service, like everything else, demands a definite organization and talent, and we do not see why we should not put at its head an able officer of the detective department rather than to assign such duty to an inexperienced staff officer. Dealing with spies is a constant game of skill and wile, at which our detective officers are constantly playing.

The first difficulty in espionage lies in finding reliable men; this is more difficult than one usually

imagines, for we require men of intelligence and daring, on whom we can place a certain measure of dependence. We must disabuse ourselves of the idea that we can turn the first individual we come across into a trustworthy spy. General Thiébault's remarks on this point deserve special attention.* "One realizes indeed," he says, "how much sagacity is necessary to find out spies from whom it is possible to secure the most enlightenment; skill to persuade them to undertake such a perilous *rôle*; wisdom not to compromise them; lastly, how much inborn tact and knowledge of men and things are necessary in all that refers to this service, so as to attach to one's self the most ambitious, to abash or stimulate the timid and covetous, and, in short, to profit of all the weaknesses which one can discover." Interest, the hope of gain, is what attracts them, and the prospect of excessive rewards chains them to us; we speculate on their cupidity, and regulate all our dealings with them on that moral failing.

To turn spies to some account requires talent. The officer who employs them needs much ability to discover the most trusty ones; he must exercise great discernment in their selection, for he requires men with plenty of common sense—men who have the gift of accosting strangers without arousing suspicion, and who must know how to make them speak to some purpose. He should be ever

* "Manuel des États Majors."

suspicious of such men as come of their own accord, and should abstain from employing individuals who have lost caste, who are burdened with debts, who have no resources, and who have at any time fallen under the hands of the law. All such are of no good; they have fallen low through their vices and folly, have no morals, no families, no references.

It is requisite to have some knowledge of the men we employ, for, however much we may despise the occupation they follow, we must have a certain guarantee for their probity in other respects. It becomes thus desirable to acquire some particulars of their families, of their interests and local ties, of their general character, of their reputation for truthfulness, and of the relations they may have in the enemy's camp. A spy should be made thoroughly to understand that any act of treachery on his part will be made to revert on the heads of the other members of his family, and will lead to the immediate confiscation of his property.

Brokers, commission agents, and contractors are good subjects for this business, as in the course of their occupations they see and hear much. Poachers, gamekeepers, smugglers, rural postmen, custom-house officials, are well acquainted with the country, and are good to go in quest of information. All professions alike are not equally adapted for this; the best are those which necessitate a constant movement. Hawkers, hucksters, drivers of

public conveyances, boatmen, retailers of cattle, vegetables, and spirits have good qualities. Inn-keepers and waiters can gather much from keeping their ears open to the conversation of their customers. Jews are considered good spies, owing to the extent of their relations, to the religious bond which unite them—whatever country they may belong to, independent of any consideration of party—and to the facility with which they reduce everything to a question of money.

A considerable influx of strangers in a country will facilitate the espionage service. Before the war of 1870, for example, there was a large colony of Germans in Paris, as great an agglomeration of them as is found in some of the cities in the United States. Some computed it at 40,000 souls, but there were others who put the number down at a far more considerable figure. There were Germans engaged in finance, employed as export and commission agents, as tailors, bootmakers, waiters, cartwrights, coach-builders, cabinet-makers, and street-sweepers. Though the majority represented themselves as Alsatians, many of them unquestionably came from the other side of the Rhine.

The second difficulty lies in knowing how spies should be treated. They should, as far as it is possible, have to deal with the same officer, who, from constant intercourse, will soon come to know his men. To secure any real advantages

there must be between them a mutual understanding. Dealing always with the same officer not only fosters this, but it engenders, so to speak, a kind of familiarity which will make the spy work with more zeal. A reciprocal intimacy between the spy and the officer who employs him will therefore always have a decided influence in the results. It is not unnatural that a spy should dislike the intermediate of an interpreter, and should always prefer to enter into direct communication with the officer who engages him. This will need a thorough knowledge of his language on the part of the latter. With interpreters, not only are we never sure of their discretion, but there is always a possibility of their not assigning the exact meaning to questions and answers, or of giving the proper value to some peculiar expression or intonation.

In all our dealings with spies, though we should never lose sight of the fact that interest is, generally speaking, their principal motive, we must observe a good deal of tact. The way spies are treated must naturally depend on their social status, their education, their intelligence, and the alleged motive which inspires them. Though we naturally despise them, we must not let this be seen; they all alike must be treated with fairness. Severity and threats are of no use. If a false spy has any inkling that he is suspected, he will decamp and thus escape retribution. The real trustworthy

spy has a certain pride of his own, and will not endure being suspected.

We have said that it is a great point not to compromise a spy. Some individuals who act in that capacity prefer to keep their incognito, so as to escape an undesirable notoriety and the disrepute which they would naturally incur were their honourless occupation come to be generally known. Such men will only be led to speak to the officer who employs them, taking every possible precaution that no one witnesses their meeting. A trustworthy spy who furnishes us with valuable news has a claim to our consideration on this point.

The third difficulty is how to use them to the best advantage. It is of no avail to give to a spy a task which is beyond his capabilities; for technical information a man must be selected who understands the subject. Spies may be intrusted at first with a small mission, being charged with more important ones after they have given repeated proofs of activity, intelligence, and trustiness. They become the agents of the intelligence officer; where the latter cannot penetrate, the former must go. To be of real use, however, they must know exactly the kind of information most wanted. The instructions given to them should be verbal. Each man must learn them by heart, and should be made to repeat them several times to show that he has grasped their real meaning. Under special

circumstances, a despatch may be confided to their care; but this is attended with danger, for a watchful enemy will neglect no means to gain possession of any paper, however artfully it may have been concealed. Written instructions may be given when the object is to mislead the enemy; but then every care must be taken that these are allowed to fall into his hands in a natural way, so as not to arouse his suspicion.

The nature of the information desired will of itself indicate the most suitable individual to employ. There are certain complicated matters which need a very acute observer, while many more simple details do not need the same measure of intelligence. To send spies to some purpose, it is necessary to have some idea of the places occupied by the principal bodies of the enemy, of the whereabouts of the headquarters of the army and army corps.

Spies may be employed in many ways; most frequently they will be directed to push forward as far as the very centre of the adversary. In doing this they may at any time be hindered in their progress; even then an adept can enter into conversation with the people who abide nearest to the enemy, or who have served him. Deftly, without arousing suspicion, from local topics he may lead individuals to speak of the war, and thus gain more or less exact information. Some spies can be sent round the enemy's flanks or rear; others may be stationed permanently in a given

locality, having men in their confidence to transmit the information from time to time. This enlisting the services of a sub-agent is forced upon them, as their frequent absence might give rise to suspicion and ultimately lead to their discovery.

Spies can be placed as watchmen in localities where there is a large clear field of observation, or in the neighbourhood of roads. Their object is to keep a good look-out and, on the approach of the enemy, either to make a preconcerted signal or hurry in to give notice. They can otherwise mix with the population to ascertain their general feeling, to give timely warning of any intended rising, or of any indication of the enemy coming to their relief.

Prudence enjoins the employment of several spies, for out of a number we shall be fortunate to find one on whose information we can place implicit reliance. This will also enable us to compare several statements coming from different sources, which is the best course to pursue when we wish to arrive at the truth. By this comparison some estimate can also be made of the intrinsic worth of each individual. As we are never sure that a spy is not in the enemy's pay, or, if he voluntarily offers his services, that he is not deputed by him, sending more than one spy for the same information tends to make things doubly sure. The necessity for employing several spies at the same time is also a natural consequence of the extent of the territory

from which we desire to draw our information, and of the urgency for each one to return as soon as possible with news. A certain foresight must be always used in distributing them evenly along the front of the enemy's army.

When we employ more than one spy, it is judicious to send them out at different times and by different roads, also to keep the real employment of the individuals unknown to each other ; each one being led to believe that he is the only agent we entertain in that capacity. Great difficulty will be, however, experienced on this latter point, for when several spies come to the same spot and report to the same officer, they must sooner or later come across each other.

We must always mistrust men who come with information from the enemy's camp, as they may have been purposely sent by him. Such men should be kept under the strictest observation, being located where they can see or hear nothing of what is going on, and should never be allowed to go away on the pretence of gathering further information. During the siege of Lucknow many pretended spies came into the Residency under pretext of giving information ; in reality they were emissaries sent to subvert the native portion of the garrison, or to dishearten the sepoys by spreading false news.

A captured spy has oftentimes been employed to transmit false information to the enemy. He will

naturally engage to do this to save his skin, but there is never a certainty that he will relate to him what he has been told. We can simply trust to the chance of his doing so.

We should never confide anything to a spy which refers to our own army, nor should he ever be made to understand what bearing the information he has brought in will have on our intentions. It is preferable to let him first deliver his statement; if any questions are afterwards necessary to elucidate it or to get further information, they should be put in a few words direct to the point, always avoiding to suggest anything which may lead him to reply in accordance with what he may conceive to be our expectation.

A spy in the pay of both sides is, generally speaking, hurtful to both. An individual suspected of double dealing may, nevertheless, be turned to account to convey false information to the adversary. To do this with some prospect of success demands a certain amount of finesse. By what is allowed to fall in the course of conversation the man must be led to believe that he has guessed our secret, which will prompt him, by taking advantage of what he deems our indiscretion, to make capital out of it with the enemy.

We should only trust a spy as far as we must. A faithless spy in the pay of both sides might lead us into a trap, or, being well acquainted with the disposition of our outposts, might guide the enemy on to their weakest point.

When a spy starts on his mission a certain locality should be designated where he will be found on his return ; for this purpose some spot should be selected beyond the most advanced sentries. Having unburthened himself of his news, he should receive further instructions and quit the place, taking any rest of which he may be in need of beyond the line of the outposts. Such an arrangement is, naturally, only possible when an army is stationary, for at other times no fixed rendezvous can be indicated.

In cases in which the army is moving, or the period of his absence may be uncertain, a spy will have to present himself at the outposts and demand an interview with the officer who employs him. We can take it for granted that all officers alike are acquainted with the manner in which our spies are to be received. The individual must be treated with a certain deference, and, pending the arrival of the proper officer, the commander of the nearest post must take personal charge of him : he must prevent his business being known, his being paraded or questioned. There will be generally about the outposts one or more officers of the intelligence service to receive the reports from spies, to interrogate prisoners and deserters, so that no great delay is likely to occur. Every precaution must be taken to prevent the spies going further back than the outposts.

Spies should be given some distinctive mark

which will make them be received at the outposts ; a ring, an amulet, a medal, or something of this kind is better than a password, which they can more easily share with other individuals.

The prospect of gain overcomes many obstacles, and for gold an individual can be got to undertake a most risky commission. As relevant information is worth money, by liberal terms we should make it the interest of a spy to serve us well. Gold is the sinews of war, above all in the matter of intelligence ; to let the service yield good results plenty of it is needed. The other powers have a special fund kept in reserve for paying spies and other secret agents. Marshal Saxe observes : " One cannot spend too much money to procure good spies ; these individuals must be taken from the country in which the war is carried out ; it is necessary to take them intelligent, dexterous, and prudent, to disseminate them everywhere, above all, amongst the providers of food, because by the supplies it is easy to fathom the enemy's designs."

The pay must always be in proportion to the risks they incur. Gain being the principal inducement of all spies, an inadequately paid one will sell himself to the adversary. If he does not betray us, his cunning may induce him to serve both sides, favouring principally the one which in his opinion is the most likely to prove victorious in the long run.

Ungund the spy, employed by Brigadier John

Inglis, when Lucknow was besieged by the mutineers in 1857, was promised 5000 rupees (equal at that time to something more than £500) for every trip he made.* He made three in all, gaining thereby 15,000 rupees; not a small fortune for a man whose earnings at the very most could not have amounted to more than ten rupees a month! The service was extremely dangerous, so much so that of the many other spies who left the Residency not one ever returned.

A spy must confine himself to serve the officer who employs him. In the defence of Lucknow, many spies, by taking messages for the relatives of the natives shut up in the Residency, proved of no value; most probably they soon came to be known, and were betrayed to the besiegers. When this fact was discovered, the spy, before setting out, was not permitted to communicate with the garrison. Having received his despatch and other necessary instructions, he was seen out of the place by the brigadier's aide-de-camp.

Difficult as it is to employ spies on one's own account, the difficulty is far greater when we come to unearth, track, and arrest such as are employed by the enemy. Unfortunately, an army is driven to make use of many of the inhabitants for a variety

* Mons. Steenackers, director of the post and telegraph offices, refused the offer of a girl who volunteered to enter Paris with despatches concealed in her chignon. The enormous sum of 50,000 francs, which she asked, was what frightened him.

of purposes, and this is of itself a door for the admission of spies. The work on which they are employed gives them a vast field for observation, and their number prevents their being suspected. A very rigorous watch must be kept, not only at the outposts, but in every portion of the army, and it must be the common interest of all to note anything which excites suspicion. From habit, the police become very familiar with faces, and the same face met at different times under suspicious circumstances, will seldom escape their attention.

There are certain indications which will lead to the detection of an unwary spy. Independent of any accent in his speech,* a spy may be discovered by the colour of his eyes and hair, by the whiteness of his hands, and by any strange peculiarities which are too apparently at variance with what he represents himself to be. The mould of the hand is said to be a most wonderful index to recognition. Beyond his personal appearance, his presence wherever there is any movement or gathering, the manner of looking, the attention he bestows on all that is passing around him without appearing to take special notice of anything, the

* Lieutenant Fromentier, in his "*Espionnage Militaire*," quotes a case in which a French soldier at Metz volunteered to cross the German lines of investment disguised as an Uhlan. When the question of the language was pointed out to him, he declared his readiness to have his tongue cut off. A piece of unheard-of patriotism which would have not availed with the Germans.

frivolous pretexts he urges for passing through the outpost or for circulating about the camps, his ingenious answers to any interrogation, his overdone protestations of harmlessness, are all suspicious signs. His halting answers when arrested, his having unwittingly about him any coins or articles which evidently come from the enemy, his clumsy endeavours to make away with any compromising documents which he may have about him, are still more convincing proofs of his calling.

Individuals who show great liberality in treating soldiers, and others who, coming under the guise of sellers, are conspicuous for their strange disinterestedness, soon become objects of suspicion.

An adept will be able to read faces, and whilst a man in his confusion will try to make out a plausible story, a close inspection of the eyes will, in most cases, show that his statement is a lie—the best one he can conceive at the moment. As a rule, a captured spy is very soft spoken and conciliating until he sees that the game is up, when he becomes angry and insulting.

There is nothing that a spy will not pretend to be to hide his true occupation. After the battle of Essling, and the breaking of the bridges over the Danube, spies came into the French camp under the pretext of purchasing the hides of the cattle slaughtered for the alimentation of the troops.

Spies have many ingenious ways of concealing their despatches, with which it is necessary to be

fully acquainted. Written messages have been secreted in the hollow of a cane, and afterwards closed with the handle or ferrule; they have been packed in bullets, sewn between the leather of the soles of boots and shoes, or in the lining of clothing, hidden in the peak of the cap, under the hair, in a decayed tooth, in a cigar or rolled up as a cigarette, in the handle of a knife, in the earrings. In Mexico the message was often hidden in the stuffing of the pack-saddle, or between the hoof and shoe of the animal; however, after having been searched, if the bearer was set free, his horse or mule with the message were retained by the enemy.

In 1690, Mary of Modena had some important despatches to send to the Jacobite sympathizers in London. These were intrusted to Fuller and Crone. The ex-queen herself gave instructions to the two emissaries.* "Not a scrap of paper was to be detected about them by an ordinary search; but their buttons contained letters in invisible ink." Fuller betrayed his trust, and delivered the documents to the king. "The first letter which William unrolled seemed to contain only florid compliments; but a pan of charcoal was lighted, a liquor well known to diplomatists of that age was applied to the paper; an unsavoury steam filled the closet, and lines full of grave meaning begun to appear."

During Bonaparte's first campaign in Italy, a person trying to cross the French lines of invest-

* Macaulay's "History of England," ch. xv.

ment to get into Mantua, was captured and brought before General Dumas. A very minute search revealed no paper or packet of any sort; still the general, fully convinced that the man was a spy, determined to get hold of the despatch. With this object, he ordered all the butchers in camp to come to him, with their hands and aprons smeared with blood, and with their knives. The supposed spy was stripped, laid on a table and tightly bound, after which the general, in a terrible voice, told the butchers to rip the prisoner open, unless he disclosed where he had concealed his despatch. The man, alive to the horrible fate which awaited him, confessed that it had been enclosed in a small capsule of sealing-wax, which he had been made to swallow. An aperient was administered, and the despatch secured. It revealed a new effort on the part of the Austrians to come to relieve the fortress, Alvinzi's march, and the number of his forces.

Herodotus (Bk. v. 35) gives the following case.* Histiceus, when he was anxious to give Aristagoras orders to revolt, could find but one safe way, as the roads were guarded, of making his wishes known: which was by taking the truest of his slaves, shaving all the hair off his head, and then pricking letters upon the skin, and waiting till the hair grew again. This accordingly he did; and as soon as ever the hair was grown he despatched the man to Miletus, giving him no

* Quoted by Myer in his "Manual of Signals."

other message than this, "When thou art come to Miletus, bid Aristagoras shave thy head and look thereon." Now the marks on the man's head were a command to revolt.

A message can be written with urine on the arm of a man with a very fair skin, left to dry and not washed off. After a week or two, by rubbing charcoal dust or paper ashes over it, the writing will become legible, for the ammonia and sugar make the carbon adhere to it.

One of the plans adopted by the ancients was to wrap long narrow strips of paper round a slightly tapering rod in such a way that the edges of the paper were in contact all down the rod. On the paper so arranged the message was written from end to end in lines one beneath the other. The paper was afterwards unwound and given to the bearer. In that state it was covered with fragments of words without any apparent connection, and the message could only be read by being wound round a similar rod in possession of the receiver.

Microscopic photographs could be very easily adapted for conveying secret messages. We have seen the Lord's Prayer (fifty-six words) produced by such means so small that the naked eye could only detect a tiny foggy speck on the glass. A photograph of this nature could be easily carried in a breast-pin, in the earrings, and other articles of jewellery. A man's studs would hardly be

suspected to contain important messages, and what a lot of matter might be photographed on them.

A spy or an emissary runs more than ordinary risks in carrying about him a despatch or writing of any sort. There are nevertheless occasions—particularly in our wars against a semi-civilized adversary—in which, for different reasons, he must be intrusted with a written message to be delivered to some special officer. The precaution of writing the message in cipher, or in a conventional manner that may be unintelligible to any but the party concerned, is usually adopted.* During the defence of Lucknow the despatch was written on very thin paper, rolled up tight, and enclosed in a tiny quill about one inch long, sealed at both ends. The message generally contained about 280 words, and was written in Greek characters, so that, should it have fallen into the hands of the rebels, it would have been almost impossible for them to make out its sense. Ungund had various ingenious ways for concealing it.

During the sad affairs in Afghanistan, in 1841, the officers at Jellalabad used to correspond with Akbar Khan's prisoners by means of newspapers, in which the letters needed to make up the message were dotted. They otherwise wrote an ordinary

* An invisible ink can be made by mixing thoroughly linseed oil one part, water of ammonia twenty parts, water one hundred parts. The mixture should be agitated before being used; the writing will appear by dipping the paper into water and will disappear on drying.

complimentary letter, and interlined it with writing in rice water, which was exposed by applying a tincture of iodine to the paper.

A sharp-witted person may often find it possible to send a salutary warning to his friends from the enemy's camp. The ignorance of the people favours this being done without incurring any risk of detection. In the Ashante war Mr. Dawson, a trader detained in Coomassie, being desirous to put Sir Garnet Wolseley on his guard, in a letter he wrote on behalf of the king substituted an appropriate text from the Testament for the usual date. Before the battle of Ulundi a trader gave in the direction of a letter the following warning: "An impi of 20,000 men here." In both cases King Coffee and Cetewayo, whilst ostensibly treating for peace, intended treachery, and their bad faith was thus exposed.

During the civil war in the Vendée the armed peasants of the various parishes communicated with each other by means of emissaries located in all the communes, and prepared to start at any moment. The despatches of the greatest consequence were most frequently intrusted to boys or women, who concealed them in their sabots, and who, being intimately acquainted with all the by-paths, slipped unseen through the republican forces.

The Vendéans had organized a telegraphic correspondence on the top of heights, of wind-mills, and of the loftiest trees. From these points

they watched the march of the republican troops, and with their pastoral horns gave conventional signs. Each note emitted by the scout had a different meaning. This sound repeated from place to place conveyed the good or bad news to all concerned. The disposition of the wings of the windmills had also its own language, and these were consulted at all hours during the day.

After all, the only really safe way of conveying a message, instructions, or information, is to commit the matter to memory, for however ingeniously an emissary or a spy may contrive to conceal it, when proper precautions are used it can always be brought to light. The Germans, in 1870-71, when they captured a suspicious individual, had him first interrogated by an officer; he was next ordered to undress entirely, and every article, all his clothes, his head-dress, his boots, were ripped and subjected to a most minute examination; naked as he was, he was surveyed from head to foot. After this careful scrutiny, if there still remained some suspicion, they administered a strong purgative and a clyster, and watched until these laxatives had their effect. If nothing was forthcoming the man was kept for eight days, and then turned out of the lines with a warning that should he be caught again he would be shot.

A well-organized espionage renders good service in time of war. To be of real worth, however, the basis should be laid down in peace. Other armies

have a regular system which is in vigour at all times. This has a director, with a given number of principal and secondary agents. It has resident informants located in the probable theatre of war, with whom spies are put in communication; these place them in relation with trusty and competent individuals, who can either supply them with the precise kind of information they require, or who can show them where it can be obtained. They correspond in a special cipher, and their letters, being addressed to business people, to men in trade, and even to clergymen, evoke little suspicion; the receivers in any case are only means for handing them over to the proper officers.

As the organization of a diffused system of espionage must depend on the foresight and views of the authorities, we abstain from proceeding any further on this point. We have endeavoured to demonstrate the necessity for a service of this kind, and how all ideas of sentiment must be set aside if we desire to secure constant information of the doings of our enemy.

CHAPTER XI.

QUESTIONING THE INHABITANTS, PRISONERS, AND
DESERTERS.

SIR WILLIAM NAPIER,* in refuting an accusation made against Moore by Sir Walter Scott in his "Life of Napoleon," to the effect that the march of the former's army was arranged by such hasty and inaccurate information as could be collected from the peasants, states: "The most contracted operation requires that good information should be obtained; and, as to the fact, Moore employed his own staff officers to examine the roads, sought information equally from noble and peasant, and, like all great commanders, regulated his proceedings by the general result of his inquiries."

When we come to seek information by questioning individuals, one might be led to think that doing this is the easiest thing in the world; in reality, it is far from so, for often a carelessly conducted interrogatory and a too-ready belief in the truthfulness and accuracy of the replies elicited

* Napier's "Peninsula War," book iv. ch. vi.

has led to unfortunate results. We may feel pretty certain that many of the questions put by an unwary interrogator will be repeated, and on reaching the adversary's ears will lead him to take measures for defeating our plans. Let us assume, by way of an example, that we inadvertently display too much eagerness to become acquainted with the nature of a given road, do we not by doing so indicate that it is our intention to approach the enemy by following the same?

Much craft and skill are required to obtain good results through questioning the inhabitants, prisoners, and deserters. The officer who wishes to conduct a satisfactory interrogatory must have tact, artifice, and a knowledge of how to treat the various kinds of individuals from whom he purposes to draw useful particulars. The talent lies in the way he puts his questions so as to conceal his real object, and in being able to distinguish in the replies he receives the important from the irrelevant, what is true from what is false. What is needed is a clever tongue, which whilst chattering fluently yet reveals nothing, and a quick brain which will draw from the person under interrogation as much as possible of what he knows. Only specialists, who are acquainted with what is going on, are in a position to know what description of information is most needed.

The number of persons interrogated must be large. Preference, of course, will be given to the

civil authorities, clergy, schoolmasters, and people of influence, education, and intelligence; with them, however, must be questioned more simple people, who are often more easily induced to tell the truth. Merchants, innkeepers, carriers, boatmen, and ferry-men, having a large and constant connection, are good subjects to interrogate. Gamekeepers, rural postmen, and hawkers move about much, and have always something to tell. Much information can also be obtained by questioning all individuals who belong to the carrying trade, as their business keeps them always on the roads, and places them in relation with a large number of people. The interrogation should extend alike to people met on the roads, found in the fields, or residing in isolated houses. The individuals must be taken from different localities, at some distance from each other, otherwise we shall have nothing but a repetition of the same particulars.

To elicit anything from the inhabitants of a country it is necessary to possess a knowledge of their language, and very often of a difficult dialect. Interrogating through an interpreter is not always satisfactory; we have no absolute certainty that he puts the questions in the way they are intended, and he may not convey to us the exact meaning of the replies. Questioning directly is quite another thing; often the party under examination may let a sentence, or even a few words slip out which will not escape the attention of the interrogator, and

which will lead to other important questions. The tone in which a reply is given may also indicate that something of importance is being held back.

In conducting an interrogatory it is always necessary, first of all, to take stock of the individuality, intelligence, and cunning of the person addressed. This will influence both the kind of questions that should be asked and the tone in which they should be put. Some individuals are of a timid disposition and easily beguiled, others are braver and not easily intimidated. A right knowledge of human character is therefore needed to know when it is best to coax and when to coerce.

If the individual is of a simple and timid disposition, it is possible by gentle manners to induce him to reveal all that he knows; if he is stubborn and not easily overawed, he will try to hold back all that he may deem hurtful to his own party; if he adds cunning to this, he will try his best to mislead his interrogator. An individual whose intellect is dull will not be able to grasp the nature of the questions put to him, and, if we desire to learn what he knows of the enemy or the country, he will have to be interrogated with great patience. A stubborn person must be approached in a roundabout way until he inadvertently lets out what he is trying to conceal, or is outwitted by his ignorance into letting out something which may appear to him irrelevant, but which the

questioner, who is an adept, will not allow to escape his observation.

Though we should carefully abstain from frightening the person under interrogation, still he must be made to understand thoroughly that it is at his peril that he will lead us astray by giving false answers.

There are individuals who hate being pumped, others who will seek to give such replies as they think will most please their interrogator. To worm out any desired information under these circumstances, it will be prudent to enter first into ordinary matters, gradually approaching a given subject as the person under examination gets more and more off his guard ; also not to appear to be moved or interested by any relevant reply, but to show indifference—as if it were a point of no consequence whatsoever—nevertheless, leading the individual back to it under other forms. Answers in the affirmative or negative are not what is needed ; the man must be led to tell what he knows, what he has seen, and not be asked if such and such things are true or not. A particular which may appear strange or improbable should not be discarded, but verified.

The intelligence of any individual under interrogation must always be taken into account, for on this will depend the weight which we can accord to his replies. In questioning the inhabitants of a country, more will be obtained from an excitable

and garrulous people than from a reserved one.

It is not sufficient to rest satisfied with the replies of a single individual on any one point, for there is always an element of uncertainty in what we are told ; it is consequently prudent to question many, so as to compare their statements. The important point being to arrive at the truth, the nature of the questions that are put will depend on the experience and wit of the interrogator. There is often a marked difference between what men say and what they mean ; a shrewd questioner will be busier with a man's thoughts than with his words.

An officer must rely on his memory, for often it will be injudicious to write down or take any note of the replies he receives. A person may reveal valuable information in what apparently is nothing else but an ordinary conversation, whereas he will become very cautious as to what he says, if he finds that what he states is put down on paper.

When several persons are to be interrogated, each individual should be questioned separately, and every care should be taken that they have no opportunity to concert their answers. A plural interrogation is necessary to see how far their statements support each other. Should the answers given by an individual be strikingly at variance with the rest, the same questions, under a different form, must be put several times to see if he contradicts himself.

We must draw a distinction between the interrogatory made by an exploring party in haste, and the larger interrogatory made by the intelligence staff at leisure. One will have more relation to the enemy in front, to the direction of the roads, to the position of the fords, woods, etc. ; the other will embrace a much larger field, and besides referring to all that relates to the enemy will comprise the general feeling of the population, the extent of the resources, and other matters.

In certain countries, notably in the East, news travel with extraordinary rapidity. It is the population which commonly gives the most reliable information of the presence, movements, and habits of the enemy. In a friendly disposed district individuals may be induced to make excursions in his midst which may yield fruitful results. In our own country, or in one in which the sympathy of the population is with us, we need not be so guarded as would be the case in a hostile country ; even then we are bound to use prudence, conducting the interrogation according as the masses are more or less favourably disposed towards us.

The officer who can acquire the respect and confidence of the people of a certain locality will be able to get some exact information of the greatest importance. This is one more reason for treating the population well. Some men are cajoled into parting with information, thinking that by doing so they oblige us and secure our protection, without

having the slightest conception that by doing so they betray their own party.

An officer of the divisional cavalry will not have much time to waste in questioning individuals; he should therefore select such as are better educated, which are the civil authorities of a town or village, clergymen, and teachers. If by good fortune he comes across individuals who have been pressed as guides by the enemy, he will be able to elicit from them some interesting particulars. The guides should be asked in what manner they have been treated, what they saw of the strength and composition of the enemy's columns, if the enemy showed any inexplicable haste or appeared pre-occupied, what precautions he observed on the march, what particular questions were addressed to them, and what they casually overheard.

The serious obstacle which a difference in language creates has already been noticed; this is sure to render the questioning a difficult matter. One way to overcome it is to furnish officers with a supply of printed sets of questions in the vernacular of the country, to be presented to the civil authorities and other well-to-do individuals. These papers should be carefully drawn up and made to contain questions on those points on which we require to be principally informed. They can be made to contain a few clear instructions indicating the manner in which they should be filled up and signed, with the penalties which will be incurred by any wilful

misstatement or subversion of the truth. When a form of this kind is presented to a magistrate or other government official, his name should be inserted therein; if served on individuals, the name of the street and number of the house should be entered. This will be enough to impose the responsibility on the owner or occupier of the same. Though unacquainted with the language, the officer or non-commissioned officer who presents it can see for himself that an answer has been inserted opposite each question.

It is of no use sending the people to headquarters to be interrogated, and waiting for the information to come up from the rear. The first investigation must be made when we come across them. The value of news, as far as local matters are concerned, is greater as we approach the source from which it originates, and the most propitious moment for questioning an individual is when he is first accosted, when he has not had time to think over his replies.

There are several descriptions of questions that should be put; some have reference to the enemy, some relate to the ground. The less educated portion of the people in most countries has a very limited knowledge of military matters; nevertheless, there are simple questions which they should be able to answer with little difficulty. We can thus demand from them the whereabouts of the enemy's forces; if they are lodged in villages or simply

bivouac; what they know of the direction of his march; of what his forces consist in infantry, cavalry, and artillery; if these arms are together, or if a column comprises only infantry or cavalry; if the troops are composed of soldiers of the line or auxiliaries; how they are dressed. Though an individual may not be able to give the number or designation of a corps, he may have no difficulty in describing the uniforms, any peculiarities in the head-dress, colours of the facings, etc. He may be able to state if the men look fatigued, if the horses are thin or much out of condition, if the soldiers are young or old, what is their discipline, if they are given to pillaging, if they are overbearing towards the inhabitants.

There are other questions which can only be answered by more educated and observant people; from these we may inquire how the enemy guards himself, if he sends out patrols regularly. Great pains should always be taken to ascertain the habits of the latter; we should inquire as to the number and composition of these patrols, if they arrive at the same hours and from the same quarter, if they are always of the same strength, from which direction they have usually come, and by which road they have generally returned. We should ask what information their leaders have demanded, what the men who composed them have said; if they passed the night in their village or town, how did they lodge, what measures of security

were observed, and which direction they took on leaving that locality.

When careful questioning elicits no information whatsoever about the enemy, it will be a good indication that he is not in that neighbourhood.

With regard to what relates to the nature of the country, there is a far better chance of collecting valuable information by questioning the inhabitants; they are quite at home there, and within a radius of a few miles are generally familiar with the neighbourhood and with its resources. The questions put to them will naturally refer to the wealth of the locality, to the roads which lead towards the enemy, to the situation of villages, bridges, fords, ravines, and defiles. In endeavouring to ascertain any by-way by which any of these obstacles can be turned, it is prudent to use a certain degree of artfulness, to assume a careless air, as if it were our intention to take the bull by the horns in preference.

It is always a great object to capture a few prisoners, to beguile them into giving us some information about their army. We must not, however, be surprised if we often find the lower ranks unable to reveal much of real consequence, or in a position to give us the kind of information that we are most in need of. Employed as they are in marching, in watching, and in camp fatigues, soldiers have little leisure for loitering about the camps and gleanings news; they often know little

beyond their own corps. The sooner prisoners are questioned after their capture the better, for they will be then in a state of agitation, and will not think of deceiving. The longer the interrogatory is delayed the greater is the hazard of getting measured and evasive replies. It will be far easier to make a young soldier speak than a veteran; the latter will be more reticent, always abstaining from divulging any circumstances which he may consider likely to injure his own side. If taken unawares or cunningly led on, he may let out something that we would much like to know; but a good soldier, to his honour, will refuse to speak when he sees that he is questioned with an object.

Prisoners, even of high rank, sometimes unwittingly betray themselves by want of caution. Napier relates how Brennier was taken prisoner at the battle of Vimiero. When brought before Sir Arthur Wellesley, he inquired if Kellerman's reserve had charged; Sir Arthur ascertained from other prisoners that it had done so, and thus became aware that the enemy's attacks were exhausted.

A sharp-witted officer can turn to account anything that is allowed to slip out in an unguarded moment. The manœuvres of 1872 on Salisbury Plain commenced with small sham fights of the two divisions. In one of these there occurred, in the Blandford force, a cavalry encounter between two brigades, commanded respectively by Major-

General Sir Thomas MacMahon and Colonel Valentine Baker. Sir John Mitchel, the chief umpire, was soon on the spot listening to the arguments of the two leaders. The advantages seemed evenly balanced, when Sir Thomas averred that his manœuvre, after all, was of little account, as the main attack was to be delivered on the other flank. On hearing this, Colonel Baker at once dropped the discussion, conceding that his adversary had the best of the argument: thereupon he was ordered to retire his brigade. He did this at a brisk pace, quitted that part of the field, and led his squadrons to reinforce the threatened flank.

The questions most usually put to prisoners should refer mainly to the portion of the army of which they form part. Thus a prisoner should be asked the number or designation of his corps and its strength; of which brigade it forms part and the name of its brigadier; to which division and army corps the brigade belongs, with the names of the officers who command them; where was his corps at the time of his capture. Such questions, asked on the plea of having to enter these details in the register of prisoners, will arouse no suspicion.

These preliminary questions can be followed by others relating to the situation and condition of his army. For example, were there any orders or preparations for an advance or a retreat; what rumours were prevalent on these points; how was his army provided in food; was the number of

sick large or small ; where are situated the hospitals and magazines. If the soldier has been captured during the march, he should be questioned as to the direction his column was following, of what troops it was composed of, for what place it was making.

Other questions should be put on what regards the condition of his own arm of the service. If the prisoner belongs to the cavalry, he should be prevailed on to state the number of horses in his regiment, their condition, the number of their losses, the steps taken for replacing them, the number of dismounted men in his troop, the number of sick horses. He should be questioned on the provision of forage—if it was ample or insufficient, whence it was drawn, if the country supplied a sufficient amount of it, or if it had to be brought up from the rear, and if it was distributed with regularity.

In a like manner, if the prisoner belongs to the artillery, he should be interrogated on all points connected with that arm. In addition to the above questions, we should endeavour to ascertain through him the abundance or scarcity of the ammunition, the nature of the ordnance, the position of the artillery and of the reserve parks.

Medical officers and hospital attendants will often be in a position to acquire valuable information from the enemy's wounded. The wounded speak freely, and in recounting the circumstances under which they were injured they often come

out with certain details which are interesting to know.

— The same questions as are put to prisoners should be addressed to deserters. However, there are no grounds for treating this class with delicacy, for deserters, as a rule, are bad soldiers, men whose cowardly nature makes them quit the colours to free themselves from the risks and hardship of war. As there is nothing that these shameless men will not do to gain favour and secure more considerate treatment, it will not require much pressing to make them divulge all that they know. The real misfortune is that they know very little; they will retail the grumblings of the camp, they will magnify the hardships, privations, and discomforts of the troops, but, as they will invent much and say what they believe will please us most, any information obtained from this source must be accepted with great caution. Prisoners of war belong entirely to another class; they have not forfeited their honour, and are still worthy of credence. We should make an exception in favour of such men as have deserted from the enemy owing to their repugnance to bear arms against their fellow-countrymen. A Lombard or a Venetian who was serving in the ranks of the Austrian army in 1859, for example, by deserting to the Sardinian or French army, possibly would not have been actuated by unworthy motives, but by a patriotic feeling which revolted at the idea of bearing arms against the deliverers of his own country.

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Medical officers and hospital attendants will often be in a position to acquire valuable information from the enemy's wounded. The wounded speak freely, and in recounting the circumstances under which they were injured they often come

out with certain details which are interesting to know.

— The same questions as are put to prisoners should be addressed to deserters. However, there are no grounds for treating this class with delicacy, for deserters, as a rule, are bad soldiers, men whose cowardly nature makes them quit the colours to free themselves from the risks and hardship of war. As there is nothing that these shameless men will not do to gain favour and secure more considerate treatment, it will not require much pressing to make them divulge all that they know. The real misfortune is that they know very little; they will retail the grumblings of the camp, they will magnify the hardships, privations, and discomforts of the troops, but, as they will invent much and say what they believe will please us most, any information obtained from this source must be accepted with great caution. Prisoners of war belong entirely to another class; they have not forfeited their honour, and are still worthy of credence. We should make an exception in favour of such men as have deserted from the enemy owing to their repugnance to bear arms against their fellow-countrymen. A Lombard or a Venetian who was serving in the ranks of the Austrian army in 1859, for example, by deserting to the Sardinian or French army, possibly would not have been actuated by unworthy motives, but by a patriotic feeling which revolted at the idea of bearing arms against the deliverers of his own country.

All deserters should be sent well to the rear, and on no account be permitted to pass the night at the outposts. As we must always look on them with suspicion, this precaution will prevent their escape or their making any preconcerted signals to our enemy.

Adroit men in the guise of deserters may not only be sent to mislead the opponent, but to spy out his doings, or as emissaries to transmit important communications to their own party through the agency of the inhabitants. The greatest care must consequently be observed to keep all prisoners and deserters from holding any intercourse with any of the population. The close confinement or isolation of all prisoners and deserters, at least for a certain period of days, should never be neglected. This may present some little difficulty in the field, but is a very necessary precaution. The effects of the deserters should be minutely examined, to ascertain if these conceal any suspicious papers. In fact, they should be submitted to the same rigorous examination as any individual suspected of being a spy.

It will be highly desirable to try and gain some reliable information regarding the state of a besieged fortress, to learn something of the condition of its resources, to acquire some idea of the state of the works, the spirit of the defenders, the hours and habits of the garrison. Something on these various points can be learnt by questioning deserters ; as a

rule, however, they belong to the lowest ranks, and are not always the most observant of men.

When in interrogating prisoners or deserters, their replies are taken down in writing, a copy should be sent to the nearest superior officer in rear by the escort which conducts them.

Some writers consider that some information may be gathered by entering into conversation with the bearers of a flag of truce and their escorts. The peaceful purport and the neutrality of a flag of truce demand our respect, and we should not designedly take advantage of it to lead any of the party into committing any culpable indiscretion.

A state of war puts an end to all general movement in the neighbourhood of two contending armies, and it will be a rare chance to come across a bold traveller who has dared to brave the risk of capture and rough treatment. Nevertheless, should our good fortune make us fall in with any individual who has safely traversed the enemy's lines, we should interrogate him closely on the following points. Has he seen any column on the march, and what time did it take in passing; were the villages he crossed in travelling full of troops; what has he heard of the strength of the enemy in the localities where he rested? Do the enemy's ranks abound with recruits; do the men and horses appear in good condition; are there many sick; is the enemy very vigilant in guarding himself? In what state has he found the roads and bridges;

was the enemy busy in repairing them, or occupied in throwing up defensive works? In which localities has he established his magazines; has he collected any quantity of cattle; were the local resources scarce and food abnormally dear? In addition to these and similar questions, we should extract from him what rumours were prevalent in the country and what was the general feeling and attitude of the population.

CHAPTER XII.

TRANSMISSION OF INFORMATION IN SIEGES OR
BLOCKADES.

THE commander of a body of troops which are besieged, blockaded, or in any way cut off, cannot but be tormented by a keen desire to open communication with other parts of the army, or with the governing authorities. He may long to demand assistance, to give an account of the condition of his forces or the state of his resources, to show the probable period of resistance, or to concert a combined action. Quite independent of this the garrison and the inhabitants can only endure with the greatest impatience being completely isolated from the exterior world. In 1870-71, so keen were the people in Paris to get news of what was occurring beyond the lines of investment, that they considered it a real piece of good luck when a copy of some German newspaper was found in the overcoat pocket of some poor German dead soldier.*

* A French writer states that at the time of the great sortie

Every endeavour must consequently be made to keep up or re-establish communication with the exterior.

The details of war cannot be improvised and conducted in a haphazard fashion on the inspiration of the moment. In the matter of conveying intelligence, as in everything else, when want of forethought places us in a difficulty, it is the improvising of the means which constitutes the principal impediment. When certain events are fresh, many points evoke considerable interest and form the subject of deep research; but this interest soon flags, and in a little time many important matters pass quite out of our mind.

One of the duties of the staff of all fortresses and of other places of importance is to see that the means for communicating intelligence are forthcoming, for, sure enough, if this matter is overlooked in peace, considerable difficulty and loss of time will be experienced in organizing them when the necessity arises. To become heedless on any point because the prospect of war is very remote is a great fault, and one which may some day entail lamentable consequences. The efficiency of an army lies in its thorough preparation for war, and this preparation must extend to

from Paris the Germans ordered the troops to burn their newspapers, so that none should fall in the hands of the French, and give them any idea of what help they might expect from the provincial armies.

all the most minute details. In their last war the French experienced the utmost difficulty in establishing communication between their besieged places and the outer world, and *viceversa*, because they had neglected to provide for it beforehand.

Information can be transmitted in many ways—by telegraph, by visual signals, by sounds, by the electric light from the arc lamp thrown on to the sky, by balloons, by carrier pigeons, by floating certain articles down a stream, and through spies and deserters. The employment of an underground cable naturally suggests itself as the best means for keeping uninterrupted telegraphic or telephonic communication between a fortress and the country. The cable, though laid very cunningly and in places where the adversary is least likely to search for it, will be naturally always open to attack. The enemy will spare no labour to ascertain its position, and, once this is found, all telegraphic communication will cease. The mere fact, therefore, of there being telegraphic communication with the exterior is no reason why we should neglect to provide other means.

As any despatches, letters, etc., are liable to be intercepted, means must be contrived for transmitting the information over the head of the besieging or blockading forces. Visual and acoustic signals are eminently adapted for this purpose. The objection that visual signalling is subject to the enemy's observation is not of any real worth,

as the precaution can always be taken to send the messages by a code or in cipher. The heliograph is the best instrument to employ for this purpose, on account of the distance which its flashes can reach. The real drawback in the heliograph is that it needs a bright sun and an unclouded sky, and that the absence of these conditions may render the communication impossible at the most pressing moment.

As the flash of the heliograph will indicate its position, the enemy's artillery will be brought to bear on the signalling party. Nevertheless, the great portability of the apparatus will allow of its being used in many different localities; and, when the position of the enemy's batteries is known, some locality sheltered from their fire can be selected. After all, the heliograph is such a small instrument, and needs but one operator, that the enemy's fire will most probably cause little harm.

Flashing always in the same direction would sooner or later lead to the detection of the receiver. This can, nevertheless, be defeated by indicating at the end of each message the direction in which the next one will be flashed. This can be done by designating the different points of the compass. The great distance which the signals can attain will frustrate the best measures for preventing a message reaching the intended party. All that a message will have to convey, when a code is used, will be a few groups of numbers, which an expert

signaller can jot down quickly and carry away with him.

In the absence of heliographs, or in the event of their use being rendered impossible, owing to the cloudy state of the atmosphere, we may resort to acoustic sounds. On a still night the sound of a powerful steam whistle can be heard a long way off, and in any quarter. Should there be a strong wind blowing, we may take it for granted that the receiver would have the sense to place himself on the windward side of the place. At night it is difficult to ascertain the exact locality from which the sound comes, consequently the signals can be made without fear of being disturbed by the enemy. With the utmost vigilance it will be impossible for him to prevent the sounds being heard, and any telegraphist, whose ear is accustomed to the tick of a sounding transmittor, will be able to make them out.

Both in this and in heliograph signalling the message must be taken down on paper, and is liable to be captured; still it would be impossible to search every individual within a radius of two or three miles of the place on the pure chance of his bearing the message. Trust must be placed in the intelligence and artfulness of the receiver, who should know how to hide it,* and the most propitious

* Any piece of material unevenly hemmed, such as would be the work of an unskilled peasant woman, can be made to represent a succession of dots and dashes. Such a contrivance would most easily escape observation.

moment for setting off. The sender must in any case have a certainty that his communication has been received, and this can be secured by some preconcerted signal.

It is prudent not to leave the arrangements for keeping up communication with the exterior to the last moment. When a commander has good reasons for foreseeing an early investment, he should detail some expert signallers to quit the garrison and take up their abode beyond the body of the place, and should concert with them a methodical system for receiving and passing on such messages as he may later on find necessary to send.

The combination of dots and dashes, or of short and long flashes, sound blasts, etc., on the Morse alphabet, generally used in telegraph signalling, is very simple, and is familiar to the ear and eye of every operator. By this means any message can be sent letter by letter in the vernacular or in a strange language. When messages, however, are of a confidential nature, as they must generally be in war, and must be kept from being read by the enemy, we are compelled to fall back on a cipher or code.

In using the heliograph or other visual or acoustic signalling, it would be a piece of unheard of folly to spell the sentences out on the Morse alphabet. The true meaning of the message must be carefully hidden, by making use of one of the

well-known means employed in conducting secret correspondence.

There is not a cipher system, however complicated, which cannot be unravelled; it will require more or less time, but in the end the key is always found. However true this may be, it will take some time for an expert—given that there is one at hand—to be able to arrive at the key, and, when he has solved the problem, the occasion for drawing any advantage from what the message contains may have passed.

The essential points in a military cipher are the following. It should be simple, possible to work with rapidity, and difficult to decipher by any one who does not possess the key. The knowledge of the most frequently recurring letters in a language, and their average proportion, often leads to the disclosure of a message written in cipher. The shorter the message is the greater is the difficulty which will be experienced in making it out.

A code is preferable to a cipher; being more simple, it is less liable to error. Cases have occurred in which a message could not be read owing to the accidental absence of the code book; but these are rare exceptions, and it is impossible to provide for every case. When a code is used it is hopeless to arrive at the purport of the message without possessing a copy of it, and as a group of signals or of figures represents a whole sentence, there is a great saving of signals in sending. By a simple

conventional arrangement between two parties a sentence can be taken so many points forward or backward in the sequence given in the code; in this manner the code can be constantly altered.

A pretended deserter may be the means of transmitting important information. If not very carefully watched, he may fall in with a patriotic fellow-countryman ready to bear a verbal or written message.

Livy narrates how in the second Punic war the Romans floated down the Vulturnus casks filled with corn, and, when this was prevented by the Carthaginians, walnuts, to feed the besieged garrison of Casilinum. Corked bottles, oranges, or dead fish floated down a stream are often made to contain a message. This an alert enemy can always defeat by spreading nets above and below the place.

Free balloons, as the siege of Paris clearly showed, can render important services as means of communication, or to convey individuals over the enemy's lines. The information which, from his personal knowledge, an officer can give on any desired point will be more valuable than the very best despatch. Though much can be explained in one of the latter when carefully drawn up, still a commander may deem it necessary to send out a confidential officer who is intimately acquainted with the condition of the place, with the state and disposition of the garrison, and with his personal ideas. We all know how the resistance of the

French in 1870-71 was enhanced by Gambetta's balloon voyage from Paris in the Armand Barbés.

Without entering into technical particulars, we may from actual facts acknowledge the utility of free balloons in the case of a siege.* The difficulties lie in there being no apparatus ready, and in finding expert aëronauts who have a practical knowledge of ballooning, or daring men who can be trained in time. In 1870 there were very few balloons in Paris when the siege commenced, and special ones had to be manufactured. In four months 66 balloons—of which 54 were new—left the beleaguered city. By these means 160 persons were carried over the Prussian lines and successfully conveyed to their destination, with nine tons of despatches or 3,000,000 of letters. Of this number of balloons five only fell into the hands of the Germans—three in the occupied parts of France, one in Bavaria, and one in Prussia—six were carried into Belgium, five into Holland, and one landed in Norway.† The rest descended in parts of the French territory not occupied by the enemy.

* For more detailed information on military balloons the reader should study the lectures delivered by Captain J. Templer and Lieutenants B. Baden-Powell and H. B. Jones; published in Nos. xcix., cxxii., and clxix. of the *Journal of the Royal United Service Institution*.

† On the 26th of November General Trochu sent despatches to Tours announcing that a sortie under General Ducrot would be made from Paris on the 29th. The despatch only reached Mons. Gambetta on the 30th of November, as the aëronaut had been carried to Norway. The precaution of sending a duplicate had been neglected.

Instances are given in which, by making a judicious use of the different currents at various altitudes, the aëronaut has descended in a particular place. Though this needs very favourable conditions and a very expert aëronaut, the fact is worth noting. Mons. Tissandier, a well-known specialist, tried to reach Paris in a balloon, but failed.

Should there be any danger of the balloon being hit by the enemy's projectiles, the ascent can be made in the evening or in the early hours of the morning when the balloon will have attained a certain height before it is observed.

Small balloons may be sent, bearing a letter-bag, with a time-fuze to regulate its fall at a given time. Though this means of communication lacks the element of certainty, there is always a fair probability of some of the bags falling in the hands of friendly individuals, who will hasten to send the contents to the officers for whom they are intended. As the letters will be written by code, any bags falling in the hands of the enemy will furnish him with no information. In sending these small balloons, it is desirable to note the direction of the wind, and to send them only when it blows from a favourable quarter.

To intimate that a balloon had landed safely and clear of the enemy, almost every balloon that left Paris carried some pigeons. The *Ville de Florence*, the second balloon sent from the capital, left at 11 a.m. and carried three pigeons. By 5 p.m. of

the same day the birds had returned with the following message: "We landed safely at Vernouillet, near Triel. We will take official despatches to Tours. Bags of letters will be distributed."

During the investment of Metz special officers were selected to organize partisan corps with the object of gaining information of the enemy's position and troops. The different tactical units in an army corps, in a division, or in a brigade, are pretty generally alike in most armies, and the establishments do not differ very much. Thus, by knowing what corps occupy a certain position, we can form a pretty fair estimate of the number of troops. Bazaine also sent officers who spoke German, under cover of a flag of truce, to treat ostensibly for the exchange of prisoners, but in reality to note the numbers and uniforms of the Germans, so as to satisfy themselves as to the location of the different corps. This surreptitious mode of gaining information was detected, and from the 1st of September the Germans allowed no emissary to communicate with them except by the road from Moulins to Ars. From that date the French received information only through spies, and this means became daily more difficult and uncertain.

General Jarras states that during the investment of Metz a Mons. Debains—a secretary of legation attached to the general staff at the commencement of the war—considering that his services would be more useful elsewhere than in Metz, obtained leave

to try and cross the enemy's lines under a false name. He was detained at Ars for a whole day, and then sent back to Metz. During his detention he had read several newspapers, and gave a summary of what he had read to Marshal Bazaine. With regard to this, it has been said, that the Germans did not leave these newspapers under M. Debains's eyes through negligence, but quite the reverse, for they had carefully selected such as contained matter most unfavourable for the French. The Hessian officers, amongst whom he passed his time whilst waiting for Prince Frederick Charles's decision, revealed to him in conversation the pitiable state of France.

When due vigilance is observed, it will be very difficult for a spy or emissary to reach a beleagured city. Of all the men sent by the French in 1870 to obtain news from the besieged places rarely one was able to reach his destination, almost every one was captured. To communicate with the outside world will be easier than to convey information to the besieged; for all that, when proper measures have been taken beforehand, it will be feasible to send information over the enemy's lines.

We have alluded to the services which the heliograph can render in placing a fortress in communication with the exterior, and the same means when judiciously employed can be made to convey information to the besieged. The

lightness, very small bulk, and great range of the instrument are all in its favour. The flash of the heliograph is soon seen, and with signallers on the look-out will not escape observation. The sending of a small group of sentences occupies a very small time, and even if a party of the best-mounted men were sent out in the direction of the operator the prospect of coming up with him may well be considered unattainable. The operator can select the most favourable spot in a very large circle, changing his position every time he has anything to communicate, and when a certain locality has been indicated as a signalling station of the garrison he will be able to take his alignment with rapidity. In very flat countries, or when the atmosphere is thick and cloudy with an absence of sunshine, to communicate by heliograph with an invested place will be impracticable.

We must notice now another and a very feasible way of introducing information into a besieged fortress, viz. the pigeon post. Before the city of Paris was invested the useful employment of carrier pigeons had been overlooked, and pigeons had consequently to be sent by balloon to the Government of National Defence, to be released at Tours and sent back to the capital with despatches. In that case it was a combination of balloons and pigeons to take the despatches out and in.

As we have touched on the danger of neglecting the means for communicating intelligence to and

from an invested fortress or city, we will illustrate this by what occurred in Paris after the battle of Sedan.* In Paris and in the provinces, at that period, there were pigeon-flying societies, and when a siege appeared imminent, it was suggested to collect all trained pigeons and send them to the provinces, bringing *viceversa* those from the outside into the town. This sensible suggestion, twice made, was not acted upon. In the second instance the officer of General Trochu's staff who received M. Cassiers—the president of the pigeon society L'Esperance—told him that his proposition was ridiculous, and politely bowed him out. Notwithstanding the ill-success met in official quarters, a large number of pigeons belonging to the various columbarian societies in the north of France were brought into Paris, and subsequently were gladly accepted by the government.

To avoid being disappointed, it is necessary to bear in mind that special birds called Homers or Homing Antwerps, descendants of the Pigeon Voyageur of Belgium, are the birds adapted for this work, as all pigeons cannot be trained for it. The pigeons in both depôts must be under the care of people who understand their management and the most favourable conditions for sending them.

* These details are taken from a lecture delivered on the 29th of January, 1886, at the Royal United Service Institution, by Captain H. T. W. Allatt. The subject was exhaustively treated by the lecturer, and, being full of valuable information, deserves to be read.

When Gambetta left Paris in a balloon, some of the best messenger pigeons were sent with him; one, a first prize race winner, returned with news of his safe arrival, but none of the other birds of that batch ever returned. It was believed that many birds were lost by being tossed at a wrong time or in bad weather.

Captain Allatt furnishes some interesting details, which we think best to give in his own words. "While the government was at Tours, from middle of September to the 11th December, 219 pigeons were tossed, and although the majority of the birds were lost, some copies of all the despatches they carried reached Paris. The average number of birds liberated each time was about five, all of which carried copies of the same despatches. From the time of the removal of the seat of government to Bordeaux, the difficulties of the pigeon post increased enormously, on account of the greater distance to be flown and the severity of the weather. From the 11th of December to the 2nd of February (the date of the capitulation of Paris) 83 birds were tossed, but very few of them ever reached the capital. 363 pigeons were sent out of Paris in balloons, of which 302 were liberated; the deficit of 61 being due to illness, deaths, and to the number at first tossed by aëronauts. Out of these 302 birds, only 73 reached Paris with despatches, viz.: nine in September, 21 in October, 24 in November, 13 in December, three in January,

and three in February. Besides these, several arrived with no despatches attached.

"As, however, some birds performed the journey more than once, there were but 57 pigeons that actually accomplished the task that was set them. Neither can we be astonished that the losses were so numerous. Many of the birds used were reliable and well trained, and these were the ones which rendered a good account of themselves. One bird was taken out of Paris six times, and flew the return journey after each balloon trip. One of Monsieur Van Rosebeke's birds returned four times, and another three times. At least two birds are reported to have reached home badly wounded. The majority of the pigeons placed at the disposal of the government at Tours and Bordeaux were, however, untried and almost useless."

The exceptional severity of the winter, the frequent occurrence of fogs, the ground covered with snow—which confused the birds in their efforts to find their way home—the shortness of the days, the attack of hungry birds of prey, the unceasing attention of the enemy, and the French peasants—who in their ignorance shot them—are all made by the writer to account for many of the birds not finding their way back to their lofts in Paris.

"The method of attaching the messages to the birds is always of importance, and had not been studied before the siege. At first the paper message, written by hand, was simply rolled up tight, waxed

over, and attached to a feather of the tail. It was soon found that the thread which kept the message in its place, cut or damaged the paper; and so, in order to protect the despatch from this, and being pecked by the pigeon, from damage by wet, etc., the paper message was inserted in a small goose quill two inches long. The tube was then pierced close to its ends with a red-hot steel point, so as not to split it, and in the holes thus made, waxed silk threads were inserted to fix it to the strongest feather of the tail.

"The birds were stamped on the wing feathers with numbers, the first number indicating the number of the bird sent, the second the number of the series of messages, and the third the number of pigeons remaining.

"In Paris the Administration of the Posts placed a sentry on each pigeon loft that had furnished birds for government use. When a messenger bird arrived the owner was conducted under escort with his pigeon to Monsieur Chapinat, Postmaster-General, who detached the messages."*

Captain Allatt quotes the case of Monsieur Nobécourt, the aéronaut captured by the Germans. Of the pigeons he took out of Paris, six returned

* At Würzburg the Germans have a military pigeon station in the castle. When the birds return to their dovecot they shut themselves in by a simple mechanical arrangement. As the trap-door closes, a wire attached to it announces their return, by sounding a bell which is placed above the keeper's bed.

bearing a false despatch sent by the enemy; this, however, was detected by the signature, and by the way in which the signatures were attached.

A very interesting part of Captain Allatt's lecture refers to the reduction of the mass of correspondence, so as to put as much matter as possible in a very small compass. This had better be given in his own words, observing, however, that the process will not only come in useful for correspondence sent by pigeon post, but through other means.

"In the meantime important progress had been made in the method of transferring telegrams, etc., to the necessarily small despatches that were carried by the pigeons. At first the despatches carried by the birds were written by hand on small pieces of very thin paper, and on one side only, a numeric cypher being often used. This is the most simple and primitive method, and was in operation till about the middle of October. It was, however, long and toilsome, and quite unsuited to the transmission of the enormous number of despatches which had to be sent to Paris. Each despatch had to be copied several times, and errors often crept in. It was then suggested by Monsieur Barreswell, an eminent chemist of Tours, to reduce the size of the despatches by photographing them, and thus at the same time secure a large number of copies without risk of errors. The despatches were accordingly first copied in handwriting in large

characters, then pasted one under the other upon large sheets of cardboard. These large sheets were then fixed to wooden panels about 2 feet by 3½ feet (65 centimetres by 1 metre), and the panels thus covered with two or three columns of messages were photographed and reduced to 1½ inches by 2½ inches (4 centimetres by 6 centimetres), a reduction of $\frac{1}{300}$ in surface. The photographs were on very thin paper, and on one side only. They were checked under a microscope before being confided to the pigeon.

"Amongst the despatches were several cuttings of the *Moniteur* newspaper, which at once demonstrated how much more considerable the reduction would be if all the despatches were printed before being photographed. The next step in advance was, therefore, to set up the despatches in type, and to photograph them on each side of the small paper messages. . . .

"About the middle of November, Monsieur Dagron, a well-known microscopic photographer of Paris, arrived at Tours with two assistants, having been sent out of the French capital by balloon for the purpose of assisting in the photography of the messages. Soon after the transfer of the delegation to Bordeaux, Monsieur Dagron's new system came into operation. His reduction in surface was much more considerable, and the messages were photographed on a very thin film of collodion. Although necessarily photographed

on one side only, each of these films or pellicles contained on an average 2500 despatches. One bird could easily carry a dozen of these pellicles, making 30,000 despatches. Sometimes this number was exceeded. For instance, a pigeon which arrived in Paris on the 3rd of February, carried 18 pellicles, which contained 40,000 messages, most of them private. This was the largest number carried. Each pellicle was sent, so as to insure arrival, on several birds, some only three times, others up to 39 times, the average being about 20.

"The *Bulletin de la Réunion des Officiers*" (11th July, 1885) states that "150,000 official despatches, and 1,000,000 of private despatches or notices of money orders were carried by pigeons into Paris.* These messages, if copied in ordinary writing, would fill 500 library volumes. The postal orders amounted to 190,000 francs (£7600).

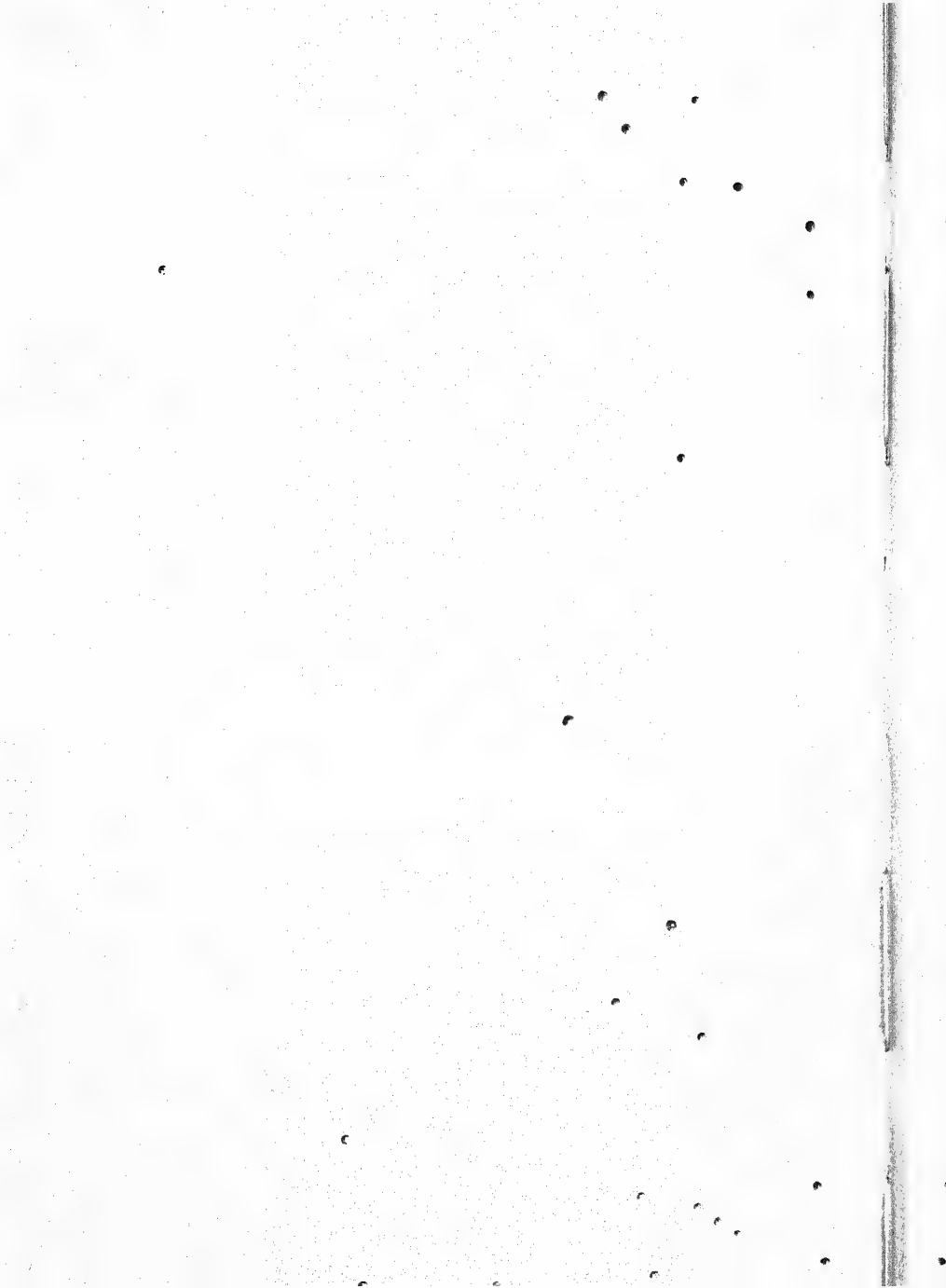
* * * * *

"The first despatches which arrived in Paris were, as we have seen, written by hand. They were read by the naked eye or with the assistance of a microscope. To these succeeded the photographic ones on paper, to decipher which a powerful microscope was essential. When, however, the collodion pellicles began to arrive, a more rapid

* Persons in England who desired to communicate with their friends in Paris during the siege had their messages printed in the first column of the *Times*. These messages were afterwards photographed at Tours and sent to the capital by pigeon post.

means of reading them was adopted. Being transparent, they were placed between two pieces of glass put into a species of electric magic lantern, and the writing was thrown in large legible characters on a screen or wall. This was copied by several clerks at once, each taking one column of writing, and in this manner the transcription and sending out of messages was rapidly accomplished."

We have considered it desirable to go into these details at some length for the simple reason that arrangements of this nature, owing to their exceptional character, come to be easily forgotten. When the occasion subsequently arrives to establish communication between a fortress and the exterior, the subject has to be studied, and much time is lost in adopting the most practical and promising measures. The prospect of being cut off from the rest of the country is so remote, that the means for keeping up a proper intercourse with the outside does not engage the attention of any one in particular; in the lapse of years the matter is allowed to slide, and when the time comes we are naturally astounded to find that not the slightest provision has been made for this important service.



APPENDIX I.

RECONNAISSANCES UNDERTAKEN BY THE PRUSSIANS THE DAY BEFORE THE BATTLE OF KÖNIGGRATZ.*

"THE 1st Army on the morning of the 2nd of July occupied the line Miletin, Horsitz, Wostromer; the IIIrd Corps (Brandenburg) on the left wing, the IIInd Corps (Pomeranian) on the right, and the IVth Corps (Magdeburg-Thuringian) in the centre. This last also furnished the advanced guard. Pushed further ahead of these was the vanguard of the VIIth Division formed by Zychlinski's detachment. With this body, whose reports were fated to cause the battle to be determined on, we shall have to occupy ourselves in the next few pages.

"Zychlinski's detachment had since the evening of the 1st of July occupied the village and château of Cerekwitz.

"A letter, the contents of which we have already given,† described its march, its occupation of the château,† and, lastly, the camp fires of the enemy which burnt on the opposite heights, distant little more than half a (German) mile. The same letter, transmitted late the same evening to the Prince's head-quarters, also mentioned the reports on the supposed strength of the enemy.

* Taken from "Der deutsche Krieg von 1866," by Th. Fontane, Berlin, 1871.

† The cavalry patrols had drawn fire at dusk, half an hour before reaching the village; and in the castle, which surrendered without a blow, were a large number of fugitives from Soor and Trautenau.

"Although these reports had been furnished, it was impossible to be satisfied with information which in everything concerning numbers* was founded on mere (unverified) statements of the employés of the château and villagers.

"It was imperative to ascertain by personal observation what force of the enemy occupied the opposite heights and the extent of their position. The following morning was fixed for the purpose.

"The night passed quietly; at daybreak reinforcements arrived in the shape of the 2nd (Major v. Busse's) Battalion of the 27th Regiment. Colonel v. Zychlinski, in order to protect himself against a *coup de main*, at once strengthened his detached posts on both wings, surrounded himself with a chain of piquets, and put the château in a state of defence by barricading and loop-holing, determined to hold it to the last with his two battalions (the fusilier and 2nd). A sentry with a telescope was mounted on the tower of the château chapel, charged with reporting the enemy's movements. Patrols were sent in all directions, and numerous reports shortly came in from the piquets, all stating that the enemy was collecting supplies, that countless waggon trains were visible, and that he had posted various batteries in the direction of Lipa, and more especially in the forest clearing between Sadowa and Cistowes.

"All this was of the utmost value. That the enemy was in front there could no longer be any doubt; still, in order not to alarm the Prince's head-quarters by exaggerated reports, Colonel v. Zychlinski decided, as already stated, on pushing direct reconnoitring parties if possible to the rear of the enemy. He charged 1st Lieutenant v. Heister, who commanded the squadron of the Aschersleben Hussars attached to his force, to take 15 men, and after establishing connection with the VIIIth Division (supposed to be on his right), to reconnoitre the enemy,

* They spoke of three corps or more.

proceeding by the road towards Lipa and returning *via* Benatek by such track as circumstances permitted. This was at 7 a.m.

"1st Lieutenant v. Heister proceeded in a south-westerly direction, searched first Hnewcowes, which in the preceding night had harboured hostile chasseurs, next Söwetz, and then headed for Sadowa, in the neighbourhood of which he was able to overlook the whole of the enemy's camp. He wished, however, to take prisoners. In the villages he had learnt that there was a company of the enemy's chasseurs in Ober Cernutek; he therefore inclined to the right and advanced at a walk, first along the main road, then by a cart track in order to induce the sentries posted at intervals to believe it was a Saxon cavalry detachment moving with absolute confidence in their security.

"300 paces west of Ober Cernutek a picquet was seen, numbering from 80 to 100 men, which seemed prepared to allow itself to be taken in by this ruse. Our hussars advanced to 50 paces, when a double sentry opened fire. Next moment our hussars charged the picquet, which proceeded to form rallying squares and to fire in disorder; two of the chasseurs, however, who had not had time to retire, were seized in front of the squares and carried off, notwithstanding the pursuing fire of their comrades.

"They were carried back to Cerekwitz. They belonged to the 34th Battalion of Chasseurs, and stated that the IIIrd Austrian Corps occupied the heights of Lipa.

"It was this corps' camp fires therefore which had been visible the night before as far as the château of Cerekwitz. Whether other bodies of the enemy were behind or beside the IIIrd Corps was not to be ascertained from the prisoners. Still all the statements of the Bohemian population, as far as it was possible to understand them, pointed to this being the case. More especially mention was constantly made of the 'Saxons.'

"A report embodying these facts was transmitted from

Cerekwitz to the head-quarters of the Prince at Château Kamenitz about noon.

"The Prince meanwhile, in consequence of Colonel v. Zychlinski's first report, had already on his own account despatched a similar reconnoitring party direct from head-quarters; giving Major v. Unger, a well-mounted officer of his staff, orders to push if possible as far as the Bistritz.

"Major v. Unger (we relate his reconnaissance in detail) first proceeded to General v. Fransecky at Horsitz, and thence to General v. Horn at Gutwasser.

"The facts he learnt at both points in the main corresponded with those that had already become known at head-quarters; the necessity to get to the rear of the enemy's outposts became more and more apparent. For this object General v. Horn granted a squadron of the Thuringian Lancers as a covering body; as, however, their horses had not been fed, Major v. Unger decided to go ahead at once with a corporal and 5 lancers—leaving the squadron to follow.

"Major v. Unger first took the main road, passed the most advanced lancer piquets of the VIIIth Division, and then diverged to the right to reach the Bistritz, or at all events the ridge (heights of Dub) lying immediately in its front, whence a view of the Bistritz valley is obtainable.

"The party, moving by country roads, met with no hindrance till it reached a dip in the ground situated in advance of the aforesaid valley, and, like it, traversed by a brook or rivulet, from the hither side of which Major v. Unger at once noticed that the outposts of the Austrian camp, which was probably established beyond the heights on its other side, had been advanced to this depression whose direction was parallel to the Bistritz.

"He saw this all the plainer as the outposts were just being relieved. To the rear of this most advanced

line of the enemy it now became necessary to get. To do this it was necessary to descend the one slope and to ascend the other, and, in doing so, to avoid the villages in the hollow in part occupied by the enemy.

"Major v. Unger now called up the lancer piquet to which reference has already been made, thereby increasing his party to 16 men, and then advanced into the low ground in the direction, but to the right, of the village of Klenitz.

"Before he had descended half the hither slope, an Austrian lancer patrol passed him in the opposite direction at 100 paces. The officers of both sides saluted each other, but one of the Thuringian lancers, paying no attention to the salute, fired a shot at the other party from his holster pistol. Unprecedented occurrence, the ball took effect! A horse, hit behind the shoulder, fell, and with it its rider, and the one who followed rolled over both. The entire hostile patrol scattered, and the fallen lancers were made prisoners.

"Approaching Klenitz, our party came upon peasants. The information they gave corresponded with that of the two captured lancers.

"At Sadowa, so they said, was posted the IIIrd, and behind it, towards Königgrätz, the Xth and Ist Corps; the Saxons at Probus.

"The IIIrd Corps was said to have pushed forward a brigade (Prohaska's) to the heights of Dub and beyond. If this was correct (and there was no longer room for doubting it) then the troops in front of him belonged to the IIIrd Corps. And as the event proved, it was Prohaska's brigade.

"Meanwhile our lancers had reached the bottom of the valley. The water which run there was bordered on either bank by strips of barely passable marsh and water meadow. The horses sank in; it was a difficult bit of ground. At last they found a kind of stone causeway by which they were able to cross.

"Major v. Unger, at once noticing the importance of this point, left a lancer sentry at the passage, in order that, if he were pursued, he might recognize this the only crossing-place from afar. This prudence subsequently saved him.

"The party now began to ascend, first past single sentries, then at short distance past the village of Dub, which, though on the near side of the summit of the ridge, was already occupied in force by Austrian chasseurs. Not a shot was fired. It was evident that our lancers, as before when met by villagers, were taken for Saxon cavalry. They even waved to them; naturally, each greeting was returned.

"Now at last our people had reached the crest of the ridge beyond Dub, and in their front was spread the valley of the Bistritz. A single glance sufficed to convince them that a large portion of the entire Austrian army was in front of them. A glance sufficed, and it had to, for almost at the same moment that our people reached the crest a squadron of the enemy's lancers (perhaps alarmed by the fugitive horsemen of the patrol previously mentioned) issued from Sadowa, which lay just at their feet, and charged them.

"Fighting was not our people's object, so they retreated; and now, owing to the enclosed nature of the ground, there ensued a regular steeplechase.

"The enemy's lancers, on fresh horses, soon caught our people up, notwithstanding their start, and apt masters of their arm (they were Poles), they kept trying by whirling their lances to hurl our fleeing low-bent lancers out of their saddles.

"Their best rider, who led the rest by 10 paces, made a special set at Major v. Unger, and pierced the flap of his tunic just above the hip, but was shot from his horse by a non-commissioned officer of our party.

"Hedges and ditches were crossed as if flying, then all at once the lancer sentry at the watercourse came into

view, and a minute later the entire party crossed the stone causeway safely. A new start had been gained; the lancer squadron meanwhile sent in support from Gutwasser now appeared on the heights, received our retreating party, and put an end to further pursuit.

"Major v. Unger was back at Château Kamenitz between 6 and 7 o'clock, having lost neither man nor horse.

"His report strengthened the Prince's decision for quick action, more especially as the several prisoners made at the outposts during the day corroborated the information that the Xth, IIIrd, and Ist Corps were in the valley of the Bistritz.

"The Prince accordingly resolved to attack on the morning of the 3rd, to anticipate a possible onset of the enemy. At 9 the necessary orders were transmitted to the subordinate leaders of the Ist and Elbe Army, and at the same time he sent a despatch to the Crown Prince to solicit the co-operation of the IIInd Army next day."

APPENDIX II.

GENERAL STUART'S RECONNAISSANCE AND RAID IN REAR OF MACCLELLAN'S ARMY, IN JUNE, 1862.*

"HE (Stuart) assembled 1200 men, composed of the 1st, 4th, and 9th regiments of Virginian cavalry, under colonels W. H. Fitzhugh Lee and Fitz Lee, the son and nephew of the general-in-chief (both subsequently became generals), two squadrons of Davis's legion, and two pieces of horse artillery. The column left Richmond on the 12th of June, and moving northwards, encamped for the night near Hanover Court House, not far from the bridge over the South Anna. Stuart had taken this direction in order to make the enemy believe that he was moving from General Jackson's side. He was twenty-two miles from the town, and could thence bear down directly on the rear of the Federal army. During the night Stuart sent up some rockets, to let them know at Richmond where he was. An answer was made to these signals from the city. Sentries posted on all sides watched against surprise. On June 13th, at dawn, after a short meal, everybody was in the saddle. The most profound silence reigned in the ranks. Up to this moment nobody asked a question about the object of the expedition. Once in the enemy's lines, Stuart confided to his officers his orders and plans. Scouts brought back word that the Oldchurch road was open. This point is equidistant from New Bridge on the

* Extract from the "Life and Campaigns of General Lee," by Edward Lee Childs, ch. v. p. 80.

Chickahominy, and the Pamunkey, a river serving as the base of Federal operations. He thus found himself in the road leading straight to MacClellan's centre. The column rapidly advanced in that direction.

"At Hanover Court House, 150 Federal cavalry took flight towards Mechanicsville. They were not pursued; Stuart was in too great a hurry for that. At Hawe's Shop several of the enemy's sentries were seized. A little further on a whole regiment of cavalry (the 2nd Federal, General Lee's old regiment) precipitately retired before Stuart's column. The pursuit continued to a little water-course named Tottapotomy. A little further on, the Federals having been reinforced, halted at Oldchurch. There was no time to hesitate. Stuart threw on them a squadron in close column, occupying the width of the road. Captain Latané, who commanded it, was slain, but the Federal cavalry made no stand, and the 1st Regiment of Virginian Cavalry, under Colonel Fitz Lee, put it to the rout, capturing several prisoners and horses. The tents, waggons, and provisions were burnt.

"Stuart had to choose whether he would return by the way he came, or, making a complete circuit of the hostile army, cross the Chickahominy lower down. His instructions left him free to act as he thought best. The railroad of the York River once crossed, he made sure of arriving at the Chickahominy, hazarding, if he met with infantry, his leaving them behind him, or if cavalry, his defeating it. He therefore decided for the hardest plan, but in truth, the least dangerous; for it was probable that the enemy was watching with superior forces all the country he had just traversed, thus rendering his return very problematical. He started, therefore, in the direction of Tunstall station. On the road, his soldiers burnt everything that belonged to the Federal army—tents, waggons, supplies. Everywhere the inhabitants welcomed them with joy. At the sight of their grey jackets many an eye was filled with tears, and more than one old man counselled them to be

prudent, 'for the enemy,' it was added, 'surrounded them on all sides.'

"On the edge of New Kent county the squadron of the advanced guard fell on a canteen establishment, well furnished with provisions. The famished horsemen halted and ordered a meal. When the canteen-keeper wished to be paid, great was his consternation at learning that he was a prisoner, and so it was with some Federal soldiers who were in the public-house. The rest of the column arriving, finished off the remaining victuals; a little further on Stuart reached the Pamunkey, and there set fire to two ships, loaded with provisions, moored to the bank. Here the column turned off on the railway. Some chosen men went on in advance and surprised the Tunstall station, cutting the telegraph wires, making prisoners twenty men on guard, and obstructing the line. Hardly had this blow been struck before a long convoy of provisions was observed approaching by the road, on its way to the Federal army, under escort of five squadrons of cavalry. To put these to flight, and obtain possession of the booty, was but the affair of a moment. Shortly after, a train was heard coming from the Richmond side, bound for the White House on the Pamunkey. The Confederates stationed sharpshooters along the way, but the train passed very swiftly, without being stopped by the obstacles. Presently Stuart's soldiers rained down a perfect hailstorm of bullets on some open waggons full of Federal soldiers. Some were killed or wounded; others, terror-stricken, leaped from the train, and were made prisoners.

"It was night, and time was becoming precious. - The convoy they had taken was burnt, as well as the railway bridge at Black Creek, thus intercepting the highway of communication between the Federal army and the Pamunkey. These precautions taken, it was necessary to set out again. The burning waggons gave light to the departing of the hardy Confederates. The roads were abominable; they had all the difficulty in the world to

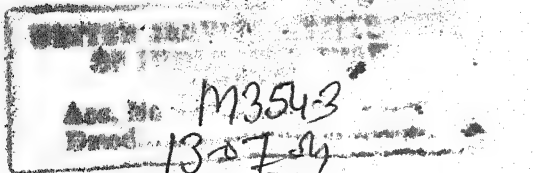
drag their cannon through the mud. Some of the men wandered on the road. A delay of three hours and a half was therefore necessary at Talleyville, in order to rally the stragglers. A Federal hospital, with 150 men in it, fell into the hands of the Southerners, but suffered no damage. At midnight the march was resumed, and on the morning of the 14th the column reached the Chickahominy at Forge Bridge, where Stuart hoped to find a ford. But Colonel Fitzhugh Lee, having tried to cross, found the river there very deep and the current very rapid. The situation became critical. The Federal sentries were so near that one could almost hear them, and numerous columns of the Federal cavalry scoured the country in all directions to cut off the retreat of Stuart's troopers, whose audacious exploits had awakened all the energy of General McClellan. Before them now flowed an impassable river; on all sides they were beset by a swarm of enemies bent on their destruction. It seemed impossible that, on the return of the day, they would not be made prisoners. Over and over again men threw themselves into the water, seeking a ford, but in vain. The only resource was to construct a bridge. Happily, at this moment, the ruins of an old bridge were discovered, destroyed by the Confederates some weeks previously. These they could make use of. With the aid of some boards found in a house, and some trees felled on the banks of the river, they succeeded in repairing the bridge, and before day all the column had crossed the Chickahominy and re-entered the Southern lines.

"Without speaking of the intelligence, precious and precise, which had been gained relative to the position and strength of the Federal army, General Stuart led back 165 prisoners, 260 horses and mules with their accoutrements, and a considerable quantity of arms. He had likewise destroyed provisions and war materials valued at several million dollars. This magnificent result had cost the life of only a single man, the brave Captain Latané. Except

a very short halt on Thursday evening, they had not left their saddles from Thursday morning till Saturday night, stopping neither to rest nor eat, and amid a thousand dangers accomplishing with success one of the most brilliant feats of arms that have ever rendered the cavalry of a country illustrious.

"Thanks to the intelligence which Stuart brought back, General Lee saw that the Federal right could be easily turned, for, so to speak, it was unguarded. He resolved to profit by this circumstance."

THE END.



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